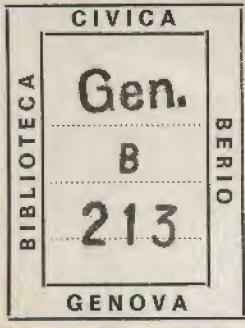
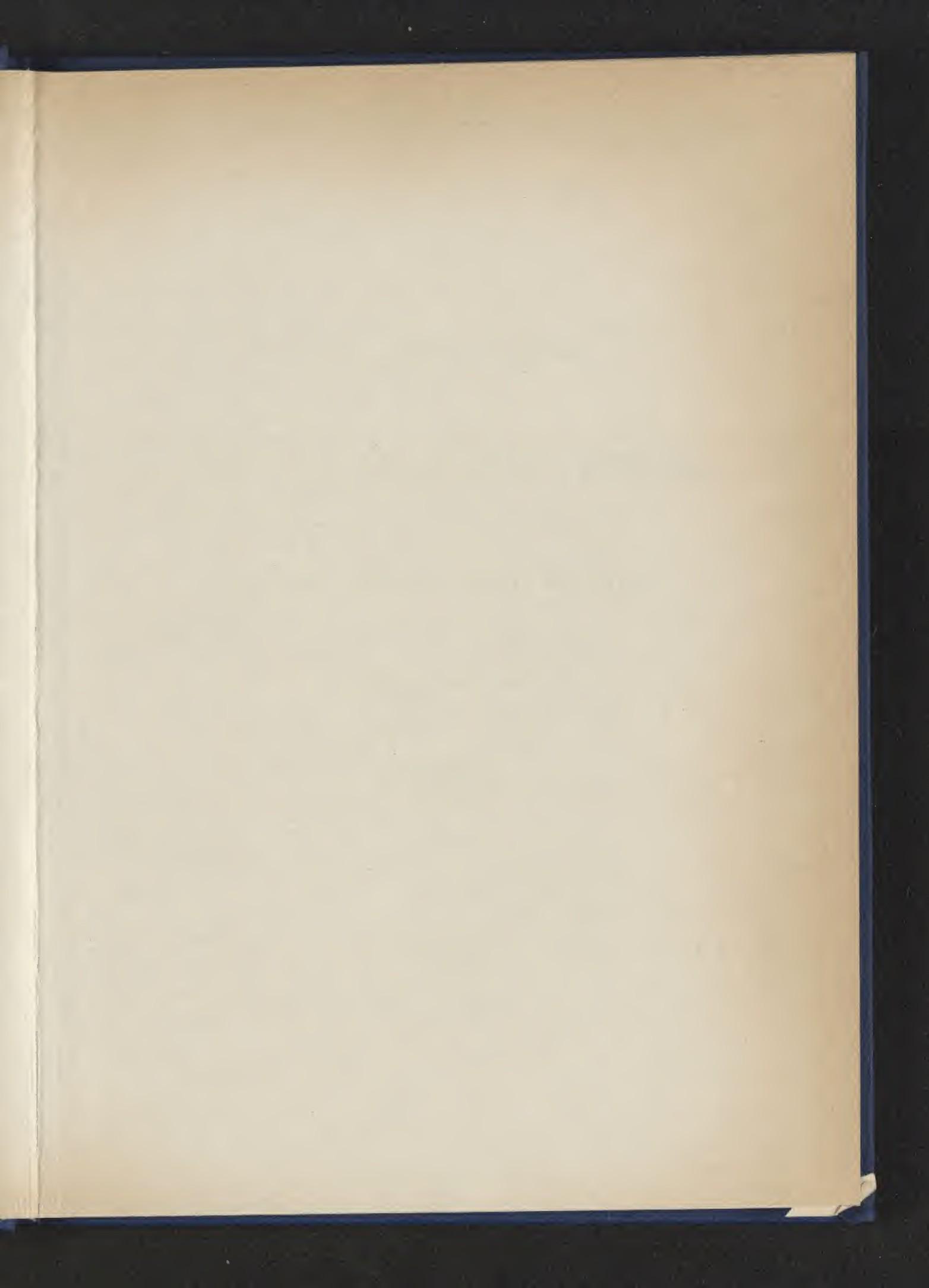


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14 MAR 1955

C. BICKNELL

THE PREHISTORIC
ROCK ENGRAVINGS
IN THE ITALIAN MARITIME ALPS

Second Edition



PIETRO GIBELLI
Printer and Editor
BORDIGHERA
1911

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CONTENTS

PREFACE	Page 5
PREFACE TO THE SECOND EDITION	» 7
CHAPTER I — <i>The regions of the Prehistoric Rock Engravings in the Italian Maritime Alps:</i>	
Their geographical position — The nearest towns and ways of reaching them — Description of the different routes to the four valleys — The “Sbarramento di Tenda”.	» 9
» II — <i>These Regions as described by visitors and others:</i> Writers on the Laghi delle Meraviglie — Gioffredo, Fodré, E. Reclus, Moggridge, Rivière, Clagnet, Blanc, Navello — Prof. Celesia and Val Fontanalba — Our own visits in 1897, 1898 and 1901	» 15
» III — <i>The Region of the “Laghi delle Meraviglie”:</i> The nature of the rocks and the engravings — The area covered by the figures — M. Rivière’s description — The Vallone and Visitor’s rock — The “défilé” and upper lake — The lower lake — The hillside — The engravings of horned animals — Weapons — Geometrical and miscellaneous figures — Modern inscriptions	» 23
» IV — <i>The Rock Engravings in Val Fontanalba:</i> Our explorations and drawings — The figures of oxen and skins — Geometrical forms — Men with ploughs and weapons — Weapons and miscellaneous figures — Modern inscriptions	» 34
» V — <i>Description of the Val Fontanalba Region:</i> The Fontanalba hillside — The ridge between M. Santa Maria and Lago Verde — The marshy valley and hillside under M. Santa Maria — The central grey mass — The small gully — The hillside beyond Lago Verde — The M. Bego region	» 45
» VI — <i>The regions of Val Valauretta and Val Valmasca:</i> V. Valauretta — V. Valmasca	» 56
» VII — <i>The authorship and meaning of the Engravings:</i> Theories of various writers — Traditions of Hannibal and of the Saracens — the antiquity of the figures — The object of the sculptors a religious one — Modern shrines — Prof. Issel’s suggestions — Hieroglyphics and works of art — Conclusions	» 59
BIBLIOGRAPHY	» 73
DESCRIPTION OF THE PLATES	» 75

BIBLIOTECA

PREFACE

In the autumn of 1897, and again in that of 1898, after spending the greater part of the preceding summers in studying the prehistoric rock engravings in the Italian Maritime Alps, I was asked to read a paper upon my investigations before the associates of the Ligurian Society of Natural Sciences at Genoa. This paper, written in Italian, was afterwards printed. The following pages are merely an enlarged English version of the same, with such additions and corrections as a third exploration in 1901, and further reflection have made necessary. I publish them in order to call the attention of my fellow-countrymen to this interesting region, in the hope that some of them may be induced to come and see it for themselves. As far as I have been able to ascertain, only one Englishman has made an attempt to explore a small part of it, and that long ago; and only one person, an Italian, has devoted a few hours of one day to the Valley of Fontanalba. It is of this Valley that I particularly wish to write, as I believe that there is no other place in Europe, perhaps in the world, where such an immense surface of rock is covered with so many and so varied prehistoric engravings.

I am only an amateur botanist, and have gone up into these neighbouring mountains in my summer holidays, in order to study their Flora: but the fascination of the rocks has made me neglect my special hobby, and I have spent the greater part

of my time in making drawings and taking notes of the rock figures. I have always been accompanied by my faithful Italian servant and friend, Luigi Pollini, who has also been for many years my botanical assistant, and whose nimbler feet, quicker eyes and ready fingers have been of invaluable service to me. I have only ventured to make a few remarks upon the questions suggested by these petroglyphs, and am fully aware that they are of little or no value, as I have not made any special study of such subjects. My chief object has been to write a sort of Guide Book to the entire region, giving a full and truthful account of the things which we have seen there.

C. BICKNELL.

BORDIGHERA.

Preface to the second edition

Since the publication of the first edition of this pamphlet we have spent the whole summer of 1902, part of that of 1905, and the whole of the five following ones, that is 1906-1910, in Val Fontanalba.

We have copied in the entire region of the engraved rocks over 10,600 figures, and think that there are probably about 500-1000 more. An account of our work in 1902, in English, was published the year following. Two short articles in Italian about that in 1905-06 and 1907-08 appeared in Atti della Società Ligustica di Scienze Naturali, and one in French about that in 1909-10 in La Revue Préhistorique. Now that we have pretty thoroughly explored the whole region, and nearly finished the task which we began in 1897, we desire to write a more comprehensive account of all that we have seen and done; but in the meanwhile, as this pamphlet has long been out of print, and we are continually being asked for copies of it, we have decided to reprint it without alterations, though we have so much to add and not a little to subtract. We would only say now that Signor Pellegrino's house has been sold, but that board and lodging may generally be obtained in a restaurant close by, which has taken the place of the old church of S. M. Maddalena; and that we have discovered a few rock-engravings in a new district far away from the others, namely near the Col di Sabbione.

C. BICKNELL.

June 1911.



BIBLIOTECA

CHAPTER I.

The regions of the Prehistoric Rock Engravings in the Italian Maritime Alps.

Travellers coming into Italy by the Marseille-Vintimille railway, or into France by the Riviera di Ponente, well know the Ventimiglia station, with its custom-house, crowd, hurry and scuffle, and often with what is still more unpleasant, a long time to wait from having arrived too late to catch a corresponding train. Close to this station, on the western side, the line crosses a bridge over the Roia river, and from there, if the weather be fine, the traveller may enjoy for about half a minute, one of the most beautiful views to be seen along the whole coast. It is well worth the while of anyone stopping at Ventimiglia, if time allows, to leave the station and walk in five minutes to the main bridge connecting the new and old towns. Standing in the middle of this, and looking up the valley, he will see the many winding branches of the river bordered for some distance by cultivated fields, the steep hills above them covered with olives on either side, and crowned on the east by precipitous conglomerate cliffs, and on the west by the ruined Castel d'Appio, the pine-clad Monte Magliocca and the lofty Grammondo. The valley appears to be shut in at a distance of a few kilometres from the sea, but many mountain ridges may be seen beyond, and in the extreme distance the tops of two of the high peaks of the Maritime Alps. These are Monte Bego with its rounded shoulder on the right, 2873 metres high, and Gran Capelet with its pointed triangular summit on the left 2927 m. These are about 32-34 kilometres from the coast as the crow flies in N. Lat. $44^{\circ} 5'$ and E. Long. $7^{\circ} 29'$. They are visible from the railway station between Antibes and Nice and from most of the higher hills on either side of Ventimiglia, but they are particularly striking from the Roia bridge, being the only high mountains visible from there which are covered with snow all

through the winter and far into the summer. The passage of the Col di Tenda, at the head of the Roia valley, was known in very early days, and though we have no evidence to prove that Phœnicians landing from the Mediterranean or Ligurians dwelling on its border made Ventimiglia their starting place for crossing into the plains of Piedmont, we may well believe that, if they did, the sight of these high mountains facing the entrance up the valley and seeming to block their passage, would have greatly impressed them. The peep of Ventimiglia with its modern houses glistening in the sunlight, is very beautiful from these summits.

We have mentioned Monte Bego, however, at the beginning of our account of the prehistoric rock figures, and given some idea of its position, because it is around this mountain that these figures are found. They are grouped at the heads of four valleys all lying directly underneath the summit or adjoining crest of Monte Bego, and the water from the snow-fed lakes and springs there, all flows into the river Roia.

These four valleys are (1) *Vallone delle Meraviglie* under the western cliffs of Monte Bego, between it and the great mass of Gran Capelet; (2) *Val Valmasea* to the north of the pass between these mountains; (3 and 4) *Val Valauretta* and *Val Fontanalba* respectively on the south east and north east of Monte Bego.

They can all be most conveniently reached from the Roia valley. The nearest place of any importance is San Dalmazzo di Tenda, a pretty spot among the chestnut trees, 696 metres above the sea, with good hotel, villas, custom-house, post office and restaurants. This place is much frequented in the summer months, chiefly by visitors from the coast. It is distant 43 kilometres from Ventimiglia, whence several omnibuses run daily, and about 5 kilometres south of the picturesque and interesting town of Tenda. Travellers from Piedmont will take the train to Cuneo, and from there by a newly opened line through the long tunnel under the Col di Tenda, reach Vievola the present terminus. From there an omnibus will take them to San Dalmazzo, about 9 kilometres down the high road. Here the Vallone della Miniera joins the Roia valley, and a good mule path up the right bank of the Bionia leads in about $2\frac{1}{2}$ hours to the entrance to Val Casterino. Before this the summit of M. Bego comes into sight. In another half hour, crossing the river, we reach the argentiferous lead mine "la Miniera di Tenda" which after having been long closed is

now in 1901 again open and being worked by a French Company. Leaving the mines and continuing up the left bank of the river, we pass the entrance to Val Valauretta, and all cultivation ceases. The path then crosses the river again and mounts rapidly. The valley, here very narrow, is known as the Val d'Inferno, but presently opens out into a wild desolate region with huge masses of glaciated schist rocks, and others fallen from the surrounding mountains, and containing numerous small lakes. We cross the stream once more and pass the two largest of these lakes, the "Laghi Lunghi". On reaching the farthest of these, the scenery is extremely grand. A few stunted and dying larch trees stand here and there, all that remain of the thick woods which were mentioned two centuries and a half ago. At the beginning of last century the trees were still abundant, but were cut down to furnish timber for new buildings at the mines. The mountains are of fine forms, and the rocks of a wonderful variety of colour, purple, green and yellow. In many parts low down they have been rounded by the action of the ice, and in others higher up where they are of a more slaty nature, they are shattered into pinnacles. This second lake is partly fed by a small stream from the north, which flows down the Vallone delle Meraviglie from the lower of the Laghi delle Meraviglie, about 2200 m. above the sea. On both sides of the stream in the Vallone, on the hillside above its right bank, and round and above the lake, are the figures cut on the glaciated rocks, which are known as the "Meraviglie" or "Wonders".

The time required by an average walker to reach this spot from San Dalmazzo is about six hours. Some sort of lodging may be obtained at the Mines, and about an hour's walk further up the valley, opposite Val Valauretta, are the highest cattle sheds called the "Tetti Nuovi" often used by mountaineers who wish to reach the summit of M. Bego or M. Capelet in the early morning. Higher than this there are only one or two miserable and dirty huts of the few shepherds and goatherds who rent the pasturage about the Laghi Lunghi and on the mountains above them.

The second of the sites for the prehistoric petroglyphs may be reached by going on past the "Meraviglie" lake, and ascending in three quarters of an hour to the pass called the Baissa di Valmasca. Halfway between this pass and the large lake lying

below it to the north, the "Lago Soprano del Basto", are other engraved rocks, few in number, and not easily found. It is better however, to visit this locality by another route, as we shall describe later.

The rock figures in Val Valauretta may be reached in an hour and a half from the Miniera valley, or equally well from Val Casterino by the way of Val Fontanalba.

Val Casterino, as we have said, joins the Miniera valley some way below the mine. If we ascend this valley, we soon cross a little bridge where there is a magnificent waterfall, and then mount rapidly till we come to pleasant level meadows, with larch woods on the left, and on the right the precipices below Monte Urno, and steep hills thickly covered with *Pinus Silvestris*. *P. montana* and a few trees of *P. Cembra*. In the distance are seen the summits of Monte Peirafica 2661 m. and Rocca dell' Abisso 2755 m. In another halfhour we cross the stream coming down from Val Fontanalba, and reach a group of houses, and the ruined chapel of S. Maria Maddalena 1557 m. Here mass used to be said regularly a century or so ago, for in those days the valley was much more inhabited and cultivated than at present, as the abandoned hillside terraces bear witness. Gradually Nice, Menton, Bordighera, San Remo, and other towns on the coast have attracted the people of Tenda, in whose Commune V. Casterino lies, and they have become accustomed to go down to work there from the autumn to the late spring, only coming back into the mountains for a few summer months of holiday. Very many have set up in business on the seaboard, and altogether given up an agricultural life.

In one or two of the cottages by S. Maria Maddalena a night's shelter may be obtained, or a bed of straw even in the old chapel, but Signor Pellegrino of Tenda has built an excellent house close by, the front part of which he has for many years let to American, German or French families, and it is there that we have passed the summers of 1897 and 1901, besides part of that of 1898. The proprietor lives in the back part, and is generally able to lodge two or three visitors. Sometimes a chamois hunter arrives for a few days' stay, or a mountaineer spends the night there, or a few friends from Tenda or San Dalmazzo come up to enjoy the fresher air and the alpine flowers.

From this centre the Fontanalba valley, and the head of Val

Valmasca and of Val Valauretta may be very easily reached, but over four hours of steady walking are required to reach the Laghi delle Meraviglie, by either of the two direct routes. The one by the mines has been described, the other is by the Baissa di Valmasca.

The Fontanalba valley is hidden from the right bank of the Casterino river by a steep hillside, and the lower part of its stream falls rapidly in a series of cascades down a narrow gully, but on ascending the hill for twenty minutes we come to open meadows, and see in the distance the serrated crest and summit of Monte Bego. On the left are the limestone crags of the Castello di Ciavraireu, rich in plants, and a ridge of cliffs prolonged to the end of the valley. On the right is the crest between Val Fontanalba and Val Valmasca with the prominent summits of M. Paracuerta and Monte Santa Maria 2782 m. Passing a copious spring from which the valley probably derives its name, we reach a lovely little green lake, Lago Verde, near which there is generally a good deal of snow till August. There is a path up either side of the valley, that on the left bank passing the lower and middle cattle sheds, called "Vastera" or "Margheria" of Val Fontanalba, and reaching the third and highest one just above the lake. Lago Verde is an enchanting spot surrounded by larches and immense blocks of schist, and patches of grass covered with alpine flowers. From there as far as Monte Bego west, and to the foot of M. Santa Maria, and in the wide barren wilderness between, the rocks are nearly everywhere more or less scored with figures.

From the head of the valley a low pass crosses south under M. Bego into Val Valauretta, and one north by a long and steep descent to the head of the upper Lago del Basto. From this latter pass, the Baissa di Fontanalba, we can also cross nearly horizontally to the Baissa di Valmasca, and thence descend to the Laghi delle Meraviglie, the time required from Val Casterino being about the same as that by the more roundabout route, via the Miniera valley. The head of this upper Lago del Basto may also be reached by the very beautiful Val Valmasca, which is the continuation of Val Casterino. One may either pursue the Valmasca valley to the source of its stream in a small and deep lake under the precipices of M. Santa Maria, and then slightly descend, or, on reaching the highest cattle shed in the valley, ascend to the lower of the three large lakes which lie in a high valley, bounded

on one side by a ridge of "roches moutonnées", and on the other by the great peaks of Cima di Lusiera 2897 m. and Monte Ciamejas 2913 m. From this lower lake a path may be found passing to the left of the three lakes.

From the above description of the valleys round M. Bego it will be seen that if persons who wish to study the prehistoric rock engravings do not care to camp out in the higher regions they will do well to sleep at the Miniera or the Tetti Nuovi for the excursions to the Laghi delle Meraviglie, and in V. Casterino for visits to V. Fontanalba and the head of the upper Lago del Basto. If only one centre be fixed upon, then it is better to choose Val Casterino. A mule can be taken as far as the bottom of the Vallone delle Meraviglie and some distance up Val Valauretta; also as far as Lago Verde in V. Fontanalba and beyond the upper cattleshed in V. Valmasca. The times required for reaching the figured rocks are, approximately, as follows:

From the Miniera to L. di Meraviglie . . .	3 - 3 $\frac{1}{4}$ hours	hours 4 - 4 $\frac{1}{4}$
» » Upper L. del Basto . . .	4 - 4 $\frac{1}{4}$ » from S. M. » 3 - 3 $\frac{1}{4}$	
» » V. Valauretta rocks . . .	2 $\frac{1}{2}$ - 3 » Maddalena » 2 $\frac{1}{2}$ - 3	
» » Lago Verde . . .	2 $\frac{1}{2}$ - 3 » to the same » 1 $\frac{1}{2}$ - 2	

We may add that Lago Verde can be reached directly from the Miniera by a straight route, ascending to the meadows of the Margheria del Bosco above the mines, from the top of which a pass leads down to the lake, but we cannot say if this road takes much less time than the more roundabout one by Val Casterino.

It may be as well to state that all the region of the rock figures lies within the military district of Tenda, the "Sbarramento di Tenda", which bristles with military roads, forts and batteries. All photographing in the region is strictly forbidden, and travellers reaching Tenda either from the north or south have their cameras sequestrated until they leave. Therefore for the present, until this useless and vexatious order be revoked, students of the rock figures must content themselves with materials for drawings, rubbings, and squeezes.

Happily in 1897 and 1898 this rule was not in force, so that we were able to take photographs of the valleys and rocks, some of which we have here reproduced.



CHAPTER II.

These Regions as described by Visitors and others

The first person to write about the figured rocks was the historian Gioffredo, who about the year 1650 published his "History of the Maritime Alps". This was reprinted at Turin in 1824.

He had received his information about them from a certain Onorato Laurenti, the parish priest of Belvedere, which is a village in the Vesubie valley now in French territory, and which can be reached by crossing a pass beyond the Laghi Lunghi and descending the Val Gordolasca.

Gioffredo says "The above mentioned lakes are called "The Lakes of Wonders", because near them, to the wonder and amazement of beholders, are to be found various rocks of different colours, smooth and slippery, which are engraved with a thousand figures, representing quadrupeds, birds, fish, mechanical, rural and military implements, with historical and fabulous events. And these rocks, notwithstanding the length of time, are not covered by bushes, which causes no little astonishment to the curious. Laurenti writes that among other things are to be seen the figures of shields, of the ancient Labarum with the eagle, and of other Roman ensigns upon long poles. From which it is to be believed that the figures were done many centuries ago, and that the authors of these spirited jokes were probably only shepherds and herdsmen who wished to while away their idle hours".

From that date to 1821, these figures do not seem to have engaged anyone's attention. Then a Monsieur Fodéré went to see them, but he probably did not reach the Vallone delle Merviglie, or if he did, he only noticed the fantastic rocks which he described as having been sculptured to represent elephants, camels, chariots of war, cuneiform inscriptions, etc., and being the work of Carthaginians. We have not been able to procure the paper written by the next visitor, M. Elisée Reclus, published in 1864 and do not know in what year he went there, but he evidently did not see the engravings, though he wisely pronounced Fodéré's

Carthaginian monuments to be nothing more than the result of erosion and of the passage of ancient glaciers. It was in consequence of these remarks that a later writer, in a work on the Western Riviera, confidently stated that though "nearly all the historians and archaeologists of the country have pointed out these designs as hieroglyphics engraved by Hannibal's soldiers, recent investigations have unmistakably shewn that these outlines left on the smooth surface of the rock were formed by the flints which a glacier dragged with it as it progressed century after century down the valley". And he adds "The Lacs des Merveilles then are nothing more than a geological curiosity" (*).

In 1868, however, some more serious work was done, when Mr M. Moggridge F. G. S., accompanied by Herr Dieck, a Prussian naturalist and near relative of Prince Bismarck, went up to the Miniera valley about the end of June, and encamped near the Tetti Nuovi. The next day they proceeded to the Meraviglie, but the weather was too stormy to allow of their taking rubbings or casts, as they had intended, and they were obliged to content themselves with some very slight and rapidly executed pencil drawings. Mr Moggridge read a paper upon his investigations at the *International Prehistoric Congress* of Norwich in August of the same year, which was published with plates of about 120 of the rock figures. These two gentlemen evidently explored the region pretty thoroughly and their drawings give a fair idea of the forms of many of the figures, though several are very inaccurate. Mr Moggridge says that "if any meaning is to be attributed to these designs, they must be read as hieroglyphics. The fact that the figures are frequently repeated and in different combinations, just as our letters are to form words, may accord with the supposition that they have a meaning".

We hear of the Meraviglie again in 1877 when Monsieur

(*) Mr Hugh Macmillan in the 1st Edition of his book *The Riviera 1885* says, when speaking of the village of Castellar above Menton, "on some of the Alpine rocks of this region may be seen very curious sculptures called *Meravigli* which tradition assigns to the soldiers of Hannibal's army, but they are evidently prehistoric carvings, similar to those of N. and S. America, Australia, and New Zealand". Why he puts the Meraviglie in the region of Castellar it is difficult to say. However in the last edition of 1902, he has done away with the prehistoric carvings altogether, by adding that more probably they are "the runes or hieroglyphics made by the stones embedded in a glacier as it flowed slowly over the surface which itself had smoothed".

Emile Rivière was sent by the French Government to study the region. He and his companion, M. de Vesly, spent 12 days encamped in the Vallone at an elevation of about 1900 m. and a most interesting paper was read by him before the Paris Congress of the *Association Française pour l'Avancement des Sciences*, in August of the following year. He made drawings or squeezes of 408 figures, and about 50 of these were reproduced with his pamphlet, and leave nothing to be desired. We only regret that he did not publish more of his drawings, including many of the most remarkable designs, badly figured by Mr Moggridge. Of his opinions upon the meaning and authorship of the engravings we shall speak later on. The evening that Monsieur Rivière went back to San Dalmazzo, M. Léon Clugnet of Lyon arrived there, and the next day he went up to the Vallone and lower lake, returning to S. Dalmazzo in the evening. But the next day he again went up, and climbed many of the heights around the lake, to try and find other figures. He seems to have considered that the rocks with polished surfaces were very rare except on the right bank of the Vallone, and that the engraved figures did not exist anywhere else. Consequently all those on the opposite side of the valley were unknown to him, and apparently those also high up on the mountain side above the Vallone. We cannot but admire M. Clugnet's pluck in making two arduous excursions on successive days, but it is evident that he was able to spend very little time there. M. Rivière is the only visitor who has made continued observations and really accurate drawings. M. Clugnet published a paper the same year with 160 figures. He attributed the rock engravings to shepherds in their hours of repose. The figure which Mr Moggridge and others have given, and which is certainly that of a man, he considers to represent a bird, and he is not able to suggest any meaning for certain figures which are so common in Val Fontanalba, and which to our minds undoubtedly represent oxen or their skins.

The next year, 1878, M. Edmond Blanc, librarian of Nice, visited the Meraviglie. He also only saw figures on the right bank of the valley. He suggested that they were cut by a superstitious people who adored a terrible divinity supposed to reside in the Val d'Inferno or upon Monte Bego. In 1880 M. Molon published his "Preistorici e Contemporanei" at Milan, and refers to the Meraviglie, giving a selection of 54 drawings copied from M.

*

Clugnet's plates, and after mentioning the various kinds of figures engraved, says that they were probably executed in the period of transition between the end of the Stone and beginning of the Bronze Age. He himself had not visited the Meraviglie.

In 1884 papers appeared in the Italian Alpine Club Bulletin by Signor S. Navello, with illustrations, and in the Rivista Alpina Italiana by Signor A. F. Prato. The former, who had visited the rocks, believes that the engravings were made by the shepherds of those regions who sought some distraction in their hours of repose, and ridicules M. Blanc's theory of the superstitious people and their divinity. Signor Prato, who had not seen the place and only comments upon Signor Navello's paper, suggests that hunters cut the figures in memory of friends who had died there during their hunting excursions, and that all the figures had reference to the animals they sought for food, and to the weapons and instruments of the chase.

In 1885 the late Prof. Celesia, of Genoa, published a pamphlet on the rock figures, which he had not as yet himself seen, and made an earnest appeal to his fellow countrymen to explore their own neighbouring mountains.

He thought it was high time for himself, a Professor of kindred studies, and for other Italians to visit a place, so close and so easily accessible, to which the French Government had thought it worth their while to send learned archaeologists. The following August, on account of the bad weather, he failed to reach the Meraviglie, and the friends who were awaiting his arrival at Tenda had already been there, but had been driven away by a storm, and did not desire to make a second ascent. They all returned home, leaving the Professor at Tenda. He apparently started on both of the two following days up the Miniera valley, but the sound of the distant thunder and the sight of the yellow and swollen Bionia discouraged him from proceeding far. The accounts of his friends and his own fears must have caused him to write as he has done of the Val d'Inferno, which he describes with the greatest exaggeration as a place of "indescribable horror".

It was then however that he had the happy thought to explore the nearer valleys, less subject to violent storms, and especially the hitherto unstudied Val Fontanalba, known apparently only to some of the shepherds. In 1880 M. Molon had written "Tradition says that also above Breglio, in the Province of Nice, near the Fontana

Alba, these traces (of a primitive language) are to be found". We have not been able to hear of any other "fontana alba" than the valley of that name, and do not know where M. Molon obtained his information. Breglio is 17 kilometres distant from S. Dalmazzo di Tenda, down the Roia valley. In 1883 Signor Navello mentioned that figures similar to the Meraviglie ones had lately been discovered in the Fontanalba valley; therefore it seems strange, with the reputation which the Meraviglie lakes have so long had, that this second region was not known earlier. It shews how very little these things interest the people of the neighbourhood. The fact is that Monte Bego has been for many years called the Righi of the Maritime Alps. It is easily climbed and has a magnificent panoramic view, and tourists who make the ascent often descend directly to the Meraviglie. The path to the well known Passo del Trem, above the Laghi I unghi, by which the priest Laurenti probably crossed from Belvedere, also leads close by the lowest of the engraved rocks. On the other hand the Val Fontanalba does not lead anywhere. Visitors to the three great lakes above Val Valmasca or the lofty M. Clapier and other high peaks, pass to the north of it, and M. Bego is most easily and quickly ascended from the Miniera valley.

On the third day Prof. Celesia accompanied by Signor Degiovanni, the Communal Schoolmaster of Tenda, and others, reached Val Fontanalba, and after spending much time in vain researches in the lower part of the valley, at length happily found two goatherds near Lago Verde, who knew of the inscriptions, and offered to act as guides. They visited the rocky slopes near the lake, and two places higher up towards Monte Santa Maria. Signor Degiovanni made a good many fair but hurried drawings, which were afterwards published together with a paper by the Professor, in the official Bulletin of the "Ministero della Pubblica Istruzione". This was a very short and hasty visit, and very little of this vast region was seen. Prof. Celesia's paper is chiefly a treatise on the Phoenicians, whom he considers to have been the authors of the rock engravings. He sees representations of "the heads of ruminants, snails, serpents, skins of beasts, nets, primæval and unknown implements, figures of men in strange attitudes, and several other images which bear a distant likeness to those already known from the Val d'Inferno".

After this visit Prof. Celesia was unable to return, though he

had hoped to do so. Indeed he died only a few months later, and we fear that his last illness dated from that memorable excursion. Val Fontanalba was then forgotten till we ourselves in 1897 went to spend the summer in Val Casterino. I had been twice to the Meraviglie many years before. I had heard of the wonders there, soon after coming to winter at Bordighera in 1879, and two years later I walked up there with a friend from San Dalmazzo, returning in the evening. It was in the early days of June, and there was so much snow upon the rocks and round the lake, which was itself almost covered over with it, that we saw very little. In September of 1885 I went again, having slept at the Miniera. This time I was able to explore more fully and made about 50 drawings in my sketch book but as seven hours were spent in going and returning, I was far from satisfied with my visit, and in 1897 determined to go there again. I wrote about the end of July to the Secretary of the Italian Alpine Club for information about the works already published on the Meraviglie, and he referred me to Dr Fritz Mader, an Associate who had a thorough knowledge of the Maritime Alps and who spent his summers in Tenda. It was then, through the full and courteous reply to a letter which I wrote to Dr Mader, that we first heard of there being inscriptions in the valley near us, and we immediately went up to search for ourselves. I had, only a few weeks before, been up the valley for the first time with a nephew. The sight of some chamois on the snow slopes in the distance enticed us on, and when near M. Bego we settled to cross over the rocks to the foot of M. Santa Maria. We passed over a number of smooth yellow rocks and I remember observing that they were exactly like those at the Meraviglie, but intent on looking for plants and choosing as far as possible the grassy gullies rather than the rocks, I noticed no figures, though I now know that we must have passed very near to many of the most decorated surfaces. If however, we had lit upon any of those of most brilliant red colour, it would have been impossible not to have seen the engravings. On this second excursion we at once discovered some figures just beyond Lago Verde. After this we dedicated as much of our time as possible to explorations, until we returned to the coast in September. At first we made some 450 small drawings, but seeing that they were far from satisfactory, we procured large sheets of paper from Tenda and began to take

pencil rubbings. We made about 211 of these in 13 long days, and we also went twice to the Meraviglie. Our friend Signor Benigni, an able photographer at Bordighera, kindly came up at our request and took some excellent pictures for us of which a few are here reproduced (Plates XIV, XVI, XVII, XIX).

The next year 1898 we again went to Val Casterino in August, remaining three weeks, and with better paper and heelball did some better work, bringing home 538 rubbings in our 12 visits, and about 100 photographs taken with a small Kodak and Frena Cameras. We carried away two detached pieces of rock, each with a horned figure cut upon it, one of which we kept for our little local museum at Bordighera, and the other we sent to the British Museum. We also sent rubbings and copies to London, to Prof. Issel of Genoa, Prof. Pigorini of Rome, and Dr. Lissauer of Berlin. In that summer we discovered figures on the rocks above the upper Lago del Basto, probably in the place of which Prof. Celesia and Dr. Mader had heard the report that they existed. We went twice into Val Valauretta and examined the more promising yellow rocks there, but could not detect any signs of human workmanship.

In 1901 hearing that Signor Pellegrino had not let his house in Val Casterino we determined to spend another summer there, which turned out most successfully, as we finally discovered figures in Val Valauretta which, as far as we had ascertained, had never been seen before, but we have since heard that these also are known to the shepherds, though they do not seem to have ever spoken of them. In previous years we had scarcely looked at any rocks in Val Fontanalba which had no coloured or polished surface, but this year we learned that there are numberless ones from which the colour has long been worn off, but on which the engravings are still, though less clearly visible. Neither before had we thought of so much as looking at the long slopes of the mountain side west of the Lago di Fontanalba, which appear, and are for the most part, so rugged and grey, and where we have now discovered so much. We paid two visits to the Meraviglie, and renewed our acquaintance with the Lago del Basto. We spent 20 days in Val Fontanalba, making nearly 700 rubbings, including duplicates, and over 100 squeezes. We found three more pieces of detached rock with figures, one of which we sent to Prof. Issel for the Genoa Museum, and another to Dr L. Capitan for that of the School of

Anthropology, in Paris, and to both of them a collection of rubbings and squeezes.

In 1901 an excellent article on the Laghi delle Meraviglie and Val Fontanalba, written by Dr Mader, appeared in the Review of the Italian Alpine Club. Mention has also been made of the engravings by Signor E. d' Albertis in his "Crociera del Corsaro", 1884, and by Prof. Issel in his "Liguria Geologica e Preistorica". The latter has, moreover, lately written a very interesting paper entitled; "The Engraved Rocks in the high Valleys of the Maritime Alps", in the *Bullettino di Paleontologia italiana* 1901, to which we shall refer later. Baedeker also alludes to them in his Guide to N. Italy.

From the above account of the visits to these regions, we see how very little they have been seen by men of science. Mr. Moggridge and M. Rivière alone have really investigated the Meraviglie, while only Prof. Celesia has spent a few hours in Val Fontanalba. It is for this reason that we, who know the former region fairly well and the latter intimately, wish to invite others with greater knowledge and experience to visit them, in the hope of their making more fruitful discoveries than our own.



CHAPTER III.

The region of the "Laghi delle Meraviglie".

The rocks upon which the figures have been cut in all four valleys, are, I believe, without exception of the same nature. Prof. Issel has informed me that they are chloritic schists. They vary considerably in texture and colour, and are grey, greenish or purple. Those which have been chosen by the prehistoric sculptors for their work have for the most part, or originally had, a thin ferruginous coating varying from a pale yellow-ochre colour to the deepest red. They have been smoothed and some almost polished by the action of the ice. Many still retain this wonderful polish and there are numberless very large surfaces without any cracks or fissures, or even clearly marked striations. Some of them, however, have now lost their brilliant colouring.

The figures on them have nearly all been made by the repeated blows of some blunt implement, probably of flint or other hard stone, and not by metal of which no trace has been found; and it has been proved by experiment that this kind of punching can be better executed by stone tools. The point of the instrument seems to have varied considerably in size, from 1-3 millimetres and the depth of the engravings is about the same. A few figures however, or rather portions of them, appear to have been made by cutting or continuous scratching. These are always straight lines, forming the handle or pole of a weapon, or the cross bars of what may perhaps represent a harrow or a hurdle. As a rule the blows have destroyed the coloured covering, so that the figures are of a different colour to that of the surrounding surface, often standing out in strong relief and clearly visible from a distance of 20 or 30 metres. On the other hand, where the coating has been worn away, close attention is required to discover the figures at all, and a person may easily cross many rocks which are literally covered with them, without noticing anything more unusual than the customary weather markings of stains and cracks. Sometimes the coloured surface is many millimetres thick, extending much deeper than the figures, and very rarely the rock appears

to have been always of one uniform colour throughout, though its surface had been originally smoothed and so prepared by nature for the drawings.

These rock engravings all lie within a space of about eleven square kilometres, the two farthest points where they are found being about $4\frac{1}{2}$ kilometres distant as the crow flies; but on account of the steep slopes, and innumerable gullies, and the shape of the rocks, often very convex and sometimes vertical, they are really spread over an area of immense size.

In Val Fontanalba it will certainly take an hour and a half for a steady walker to go from the figures nearest Val Casterino to those close under Monte Bego. The lowest ones are at an elevation of about 2000 m. and the highest at between 24-2500 m.

We must now speak in detail of the "Meraviglie" region. The four days or parts of days which we have spent there were much too short a time for a thorough exploration. We should have gone there more often, had we not thought that as that place had been so often described, and so many plates of the figures had been published, there was nothing fresh to be seen or said. Also we agreed that it was better to devote all our time to the almost unknown Val Fontanalba. But we now regret that we do not know the "Meraviglie" thoroughly, for in the part that we do know we have certainly seen rocks or observed figures upon them which have escaped the eyes of our predecessors, or at least of those who have published any account of their visits. Certainly the greater number of visitors only go to the lower lake, passing on their way several of the best known figured rocks, and are content. They remind us of tourists whom we have met in Egypt, who after seeing one or two of the temples on the Nile were infinitely bored by being taken to others, because, as they remarked, "they were all alike".

Monsieur Rivière after mentioning that he pitched his tent near the lowest figured rock in the Vallone, says: "À partir de là, et en suivant, soit le même couloir, soit un défilé à peu près parallèle ou tout au moins peu divergent de celui-ci, et avec lequel il se confond à un moment donné, nous avons trouvé éparses ça et là sur une longueur de deux kilomètres environ, et en nous élévent à une altitude de près de 2600 m., tout auprès des premières neiges éternelles, une cinquantaine de roches présentant toutes de signes gravés, en plus ou moins grand nombre".

"Peut-être en existe-t-il encore plus loin, mais le défaut du temps.... ne nous a pas permis d'aller au delà de ce point. L'un des hommes qui nous ont servi de guide et d'aide, pendant tout notre séjour au Val d'Enfer, nous a affirmé qu'il connaissait d'autres roches gravées à quelque distance de celles que nous avons estampées". Perhaps this man knew the Fontanalba ones or those beyond the Baissa di Valmasca, but he may have alluded to those beyond the lower lake, and on the other side of the valley, which we believe M. Rivière and all other writers could not have visited.

As far as our own knowledge goes, we describe the region as follows. About halfway up the Vallone and beyond the first seen figures, the path passes under a high vertical wall of highly polished rock, of greenish-brown colour. These vertical surfaces of similar peculiar texture, positively shining, are not uncommon both in the Meraviglie and Fontanalba districts, but are very seldom engraved. They appear to be harder and have no superficial colouring, and it is more difficult to punch figures upon them. A few however, though very few, in the Fontanalba valley have ancient figures, and there are occasionally recent ones, more easily made with some kind of sharper modern tools, such as our prehistoric sculptors did not possess.

This vertical rock in the Vallone, overhanging the track, not far distant from which is a smooth coloured block near the stream, on which M. Rivière has left his name with the date 1879 and a small rapidly and slightly punched figure of an ox's head, is scored with the names or initials, cut or scratched, of countless visitors. It seems to serve the same purpose as the bottle for cards on a mountain summit, and though we ourselves have not added our names, it is probable that most of the visitors cannot refrain from doing so. This is a good thing, as they are less likely to be tempted to deface the interesting rocks further on. Signor Pietro Palma, a well-known shepherd and intrepid chamois-hunter, of Tenda, who has frequented all these mountains from his youth, has cut his name again and again both at the Meraviglie and in Val Fontanalba. When one day we had discovered it deeply incised across a prehistoric figure of a weapon, we remonstrated with him, and we have reason to hope, from what he has since said to a mutual friend, that he has taken our words to heart. Some of these sgraffiti are not however without a certain interest. The name Bensa, cut in large letters with the date 1829, is that

of a notorious highwayman, who was the terror of Tenda and all the neighbouring country about the year 1825. He has also left his name, deeply incised on the schist on the very summit of Monte Bego. He was at last caught in France, and executed.

Some way beyond this visitor's card-plate, a little track leads upwards and then continues above and parallel with the river till one is above the lake. This is M. Rivières' "défilé". It passes two large long yellow rocks covered both on the rounded upper surfaces and vertical sides with figures, and many other smaller and less conspicuous ones with few engravings. At the end of this track, one descends easily to the upper part of the lake. If instead of descending we continue to mount, we reach a higher lake lying under a very imposing towering mass of rock called by Dr Mader "Rocca delle Meraviglie". On the way up and as far as this lake are numerous figures. Beyond the lower lake, on the right bank of the stream flowing into it, is a conspicuous rock with horizontal surface having many figures of weapons, and beyond this are others sparsely scattered about. On the opposite or east side of the lake are many large yellow rocks, "smooth and slippery", as Gioffredo said, with interesting figures; among them a row representing five implements or weapons close together.

One rock deserves special mention. It is perhaps the most wonderful of all the "Meraviglie", and were this the only one to be seen in the whole region, it would still well reward the fatigue of a long journey. It lies about fifty metres due east of the stream a little beyond the lake in the direction of the cliffs of Monte Bego. A grassy slope leads up to it, on the left of which is a rock with one of the largest and most intricate figures of intersecting straight and curved lines. It is a large convex mass, yellow and highly polished on its southern slope (Plate XIII, 1), and there engraved with numerous figures clearly visible; but the other or northern side where the colouring has been worn away, and where the surface is gray and very much weathered, it is indeed a "Wonder" (Plate XIII, 2). Nevertheless this side would probably be passed unnoticed by the greater number of people, as having nothing on it. It is, as a matter of fact, completely covered with figures, many of which have not been visible for centuries till we ourselves brought them to light by clearing away the coarse grass sods at its base.

About 45 figures of weapons of various forms can be readily

distinguished, and numberless other figures, but still more are no longer to be traced with certainty. One of the weapons is 98 centimetres long, another, a great dagger or javelin measures 79 c. One, which we have not seen ourselves, though we must have spent hours lying on the rock to take observations and rubbings, now sliding down its slippery side and now wriggling up again, was discovered by a companion, Mr Edward Berry (Plate I b.). and is quite unlike any other figure of a weapon elsewhere. Towards sunset the engravings, which are of a slightly different tone to the surface round them, and have a little shadow on one side, are much more plainly visible, and as one stoops down and looks up along the slope, one can discern much that at midday, with the sun high in the sky, is almost invisible. But it is not only this crowd of figures which makes this rock so particularly interesting. Upon it and near the end towards the valley, there rests an enormous block of schist, of the colour of purple porphyry, contrasting strangely with the smoothed and yellow surface beneath it. It stands upon a very small base, and looks like a rocking stone. In the reproduction of this from one of our photographs, a small piece of detached rock is also seen lying to the left of it. (Plate XIII, 2) This might be removed for safer custody in a Museum, though with great difficulty, and if first considerably reduced in size. We have often thought of doing so, but finally abandoned the project, partly on account of the labour and money that would have to be expended, and partly because the figures cut upon it, though numerous, are in bad preservation and uninteresting. Nothing in the whole of this region is to us so impressive as this spot. This purple mass resting so lightly on the yellow surface somewhat isolated from the great boulders near it, and surrounded by the wildest scenery of cliffs and peaks, and a very chaos of erratic blocks and scree, seems to be indeed a sacred place, a very "Santa Sanctorum", the altar of the Divinity of M. Bego. And we often think that it must have inspired the prehistoric sculptors with awe, and that their crowded interlacing figures must have been some expression of their fears or hopes, their prayers for gifts of good things or for deliverance from evil ones. Surely they did not break the silence of those far off solitudes, where all that one hears is the cry of an occasional marmot, or the rattle of the thunder, and cut all those figures of knives and daggers to while away their idle hours.

We hardly know what is to be seen lower down on the left bank of the Vallone, not having explored it, and have only noticed a few figures, but the higher slopes above the right bank are of the greatest beauty and interest. These are most conspicuous from the Laghi Lunghi. The whole mountain side seems to be of a tawny orange colour. One best reaches this by following the "défilé" till above the lake, then mounting a little and doubling back, thus avoiding some precipitous cliffs. Then we see rows upon rows, like the long rolling waves on the Mediterranean shore, of yellow, orange, pink and crimson banks of rock, rounded by the ice, and with little grass passages between them. One can walk along at the base of them, looking at such figures as are cut upon them, till a break in the rock enables one to mount a little higher and turn back under another long wave. We have had no time to climb up to the highest of these rocks, and after passing many on which there were no figures, we descended. The best of them are not by any means covered with figures, though one wonders why these, the smoothed, cleanest, and most perfect of all the surfaces, were not more appreciated. They are much more beautiful than those in the valley and the "défilé", hardly at all worn and with scarcely a crack, and it seems that they will always remain unchanged as they have done for ages. We have never in any other part of these or in other mountains seen such a strange and lovelily coloured series of rocks. There are many figures of weapons here, large complicated geometrical devices, and a few quite unique ones.

We cannot guess how many figures there may be in all at the Meraviglie. Mr Moggridge says there are "many hundreds, perhaps thousands"; M. Rivière copied 408. Many of the plates published reproduce the same figures, but each of them has something not given by others, and all of them a large proportion of those which we ourselves have never seen.

By far the larger number of figures are representations of the heads or bodies of animals with a pair of horns. M. Rivière thinks there are heads of oxen, goats and deer, and that no bodies are in any case represented, but believes one of the heads to have ears. Signor Navello sees besides the above creatures, figures of sheep, chamois, ibex, dogs and a bird or two, but he says that all the animals are without ears. This remark has induced Signor Prato to consider that the sculptors wished to represent skulls. Monsieur Blanc

distinguishes the stag, aurochs, eland, ibex, mouflon, roebuck and chamois, that is to say wild animals, with probably heads of the goat, ram and ox. He thinks there are also figures of the skins of deer and lynx. M. Clugnet says much the same, and finally as we have seen, Gioffredo mentions fish, while Prof. Celesia has added snails and serpents to the already long list. To them we might ourselves add beetles, scorpions or lobsters, centipedes and bats, which some of the Fontanalba figures strangely resemble, were it not that we do not think that the sculptors intended to make drawings of all these creatures.

Not seldom these heads have two pairs of horns, or they are branched in the centre or at the extremities, or they have some sort of ornament between the horns, either round dots or a third upright horn or a cross. The horns are sometimes joined by a cross bar, or united at the top to form a circle, and are of most varied forms, convex, concave, zigzag, or waving, widely divergent or upright and parallel. Later we shall have occasion to speak of these more at length. For the present we would only remark that we fully agree with M. Rivière when he says, after alluding to the fact that some of these figures resemble a fork or a spur more than an animal's head, as the head is little or not at all broader than the horns, "Et ce n'est que par induction, et en suivant les différentes transformations que le dessin a subies, que j'arrive à reconnaître les dernières apparences d'une tête". As to their size they are for the most part about 12, 15, or 19 centimetres long, and of nearly the same breadth. The largest of those we have noted measured 42 c. by $19\frac{1}{2}$ c. To our mind some of the figures drawn by M. Rivière seem to represent the animal's body with legs and tail.

After the horned creatures, figures of weapons are probably the most abundant. Indeed there is hardly a rock with many figures upon it, which has not a weapon of some form or other. This is one of the most striking features at the Meraviglie, where there are a dozen or more forms of swords, daggers, javelins and picks or hammers which are not to be found on the other Fontanalba rocks. Some of these also seem to be ornamented, or the weapons have been made more elegant though less true to nature by the artifice of dividing the handle from the blade; or it may be that the different materials of these were intended to be indicated (Plate I, c). One figure on the large rock N. E. of the lake

resembles a modern spanner (Plate I, *d*). There is one above the valley in the form of a hammer or celt, in which the representation of the stone or metal part is 18 c. long, with a handle measuring 1 m. 74 c. Some have the appearance of flags, perhaps Laurenti's "Labarum", the weapon not being entirely cut out; but the contour is punched, and there are several longitudinal lines within it (Plate I, *e*). Others look like garden trowels. One or two, perhaps more, are like the figures of halberds in Val Fontanalba, and nails for fastening the weapon on to the handle are indicated. There are also one or two figures of, apparently, wooden clubs. M. Rivière says that the handles of the figures of swords are small and narrow, suggesting that the sculptors had delicate hands, but he only speaks of figures which were no longer than 33 centimetres, whereas some of those which we have measured, probably representations of swords or poniards, are 55 c. long and one, the largest of all is 80 c. with a handle too broad for anyone to grasp (Plate I, *a*). Perhaps the drawings were more or less true to the outlines of their weapons, but the dimensions varied according to the artists' fancy, just as the length of the horns of the beasts did. Many of these figures of weapons are extremely well cut, very symmetrically, and with straight edges, and as a rule with much greater care and accuracy than the horns or other figures. Probably the men had their weapons under their eyes at the time. One cannot help thinking that some may have had their outlines traced first on the rock.

The third group of designs, all having a certain family likeness to each other, consists of what we may call geometrical figures, the simpler ones possibly representing, as has been suggested by various writers, nets or hurdles, instruments of the chase (Plate II, *a*). M. Clugnet likens some of them to those nets of twisted straw often used in the mountains for carrying down the hay. These are extremely abundant, and often very elaborate. There are circles with two diameters in the form of a cross, two concentric circles with a spot in the centre, oblongs and rectangles and other closed figures with many perpendicular and horizontal bars, or with only transverse ones, or with a pattern like a brick wall (Plate II, *b*). Then there are also more complicated figures, with both straight and wavy lines within the border (Plate II, *c*), or loops and circles, or wavy lines without any border round them, possibly unfinished drawings. There are also combinations of these forms joined

together. One of these, a large part of which was hidden underground and which we completely unearthed, measures 75 c. \times 35 c.

These figures are a very special and conspicuous feature of the Meraviglie district, and are for the most part of a different character, though at the same time similar, to those in V. Fontanala. They are rarely well cut, and often very badly.

These are the three classes of figures which chiefly strike the visitor and I remember that on my first visit there I carried away the impression that all the figures were representations of deer, weapons, and nets.

Besides these are the single figures which often cannot be classed in either of the principal groups. There are certainly two figures representing a man, and a few ploughs which have not been mentioned by M. Rivière or M. Clugnet, in which two oxen are yoked together, and the shaft and share of the plough are clearly denoted. (Plate II. *d*.) One figure peculiar to the Meraviglie shows five somewhat similar horned beasts yoked together in a row and the plough share is without doubt indicated (Plate II *e*). Of course some of the heads may have been added later by another sculptor. M. Clugnet has given a drawing of these, but has omitted the fifth animal. We feel sure that many of the larger figures have been built up, so to speak, by degrees, at different times or by diverse hands, and in this way it is not unlikely that some of the simple types have been turned into figures whose meaning we cannot explain. M. Clugnet gives a drawing of an eight-rayed star, and M. Rivière one of a wheel and shaft, that is to say of a circle with seven radii, and a long sort of pole. We have taken a rubbing of a somewhat similar figure, consisting of two concentric circles with eight lines between their circumferences, a diameter to the inner circle, and something else attached to the outer one, this last very probably being really a separate figure (Plate II, *f*). M. Rivière also gives what looks like a basket with a round handle, but which may only be the same thing as a figure constantly repeated in two of the other valleys. Mr Moggridge alone represents a part of one of the most extraordinary figures of all. We dug out the lower half, which he had not seen, The blades of two weapons, turned away from each other, stand apart; their handles are connected by horizontal bars, with other somewhat confused lines and with a rectangle at the base. At the base of each blade there appears to be an outstretched hand with the five fingers clearly cut (Plate II, *g*). It seems intended

to represent two hands graping weapons. The other part may have been an addition, or the hands and weapons an artistic addition to one of the geometrical figures. We have since discovered that there is a spot in each of the upper partitions, and now think that the sculptor tried to represent a face. If any of these figures are indeed hieroglyphics, this would probably be one. Mr Moggridge has given many other strange devices, some of which unfortunately we ourselves have not seen, and there are also others which I myself roughly sketched in 1885; but as we have not taken careful rubbings of any of these, we do not like to reproduce them at present, hoping to copy them accurately on some future visit.

Besides the modern inscriptions of names in the valley, mentioned above, there are some others fairly interesting, especially those that were cut, if the dates be genuine, as we have no reason to doubt, before Gioffredo wrote, and at a time when probably few of the shepherds who may have frequented these mountains, had much knowledge of writing. Indeed these were most likely not done by shepherds. High up on the western side of the Vallone are to be seen "B. G. 1607" and "Claudio Salvagno di Tenda 1619, 10 Agosto"; also later ones, "Giovanni Cassio 1717", and the date "1718, 13 Agosto", without any name. These are very well cut, not punched, and look perfectly white and new, as indeed they certainly will look for centuries to come. Any modern figure, in whatever way it may have been executed can be instantly recognized as modern, by anyone who has long studied the rocks. It is therefore useless for tourists to try and deceive any serious students, and it is absurd to persist in asserting, as friends have done, because they have seen someone cutting something, that all the figures are comparatively of recent date, or the spirited jokes of shepherds of the last century in their hours of idleness.

On mentioning the name of Claudio Salvagno to people of Tenda, I was informed that there is no family of that name now living there, and moreover that they had never heard of such a family. But Dr Mader through the kindness of Signor Degiovanni has lately discovered a register in the parish archives dated 29 July 1631. "A daughter of Signor Claudio Salvagno and of his wife Caterina, who was born on the 25th instant, has been baptized by me Giovanni Arnolfo the parish priest. Her name has been called Magdalena". Then follow the names of her godfather and godmother. It seems not unlikely then that this is the person,

probably of good family, who had cut his name twelve years before on the Meraviglie rocks, in letters which look only a very little less new today than those of M. Rivière in 1877. The cyphers of these dates are of a form no longer used. Two of them have also a cross attached, as if the more believing or more superstitious people of those days realized the uncanniness of the Meraviglie, and thought the devil might have had some share in producing the rock figures. Val d'Inferno is not an uncommon name in our wilder mountain regions, such as this, but here are a number of similar ones. On one side of the Vallone is the Cima del Diavolo, on the other Val Valmasca, that is "the Valley of the witches"; Monte Bego itself is thought by some to be derived from the Celtic and to mean 'bad', but this derivation is uncertain. But, as Dr Mader says, the Saracens were in these valleys for about 50 years in the 10th century, and all places once occupied by them have been esteemed accursed. The name Monte Santa Maria above Val Valmasca gives the idea that that mountain had been so called, or else renamed, to counteract the evil omens of a neighbourhood abounding in diabolical names.

There is one other interesting modern inscription near the lake, a mere scratching, probably done with the point of a knife. This is "Gian Battista Guidi 1 Agosto 1766", and underneath a second date 1770 with apparently, the word "reduce". From this we gather that that gentleman returned four years later. We call it interesting, because though a mere scratch, it is still after 135 years, very clear. A shepherd told us in 1898 that he had observed the date 1576. He could not remember where it was, but he had cut these figures upon his stick as a remembrance.

We may add, by way of conclusion to our account of the Meraviglie, that it is evident that no one person has yet seen the entire collection of rock engravings there, and that there is probably much more to be discovered which no one has seen at all. The mountain sides are steep and rugged; great blocks lie heaped about everywhere, and on many of these in places where the rare mountaineers or shepherds never pass, there may be many figures which have never been seen since the days that they were engraved. There are plenty of other "wonders", besides those which interest the anthropologist and archaeologist at the Meraviglie, and the geologist and the botanist, or the artist and the photographer, will not regret a visit to this enchanting spot.

CHAPTER IV.

Rock Engravings in Val Fontanalba.

Of the Fontanalba region it is extremely difficult to give any succinct description. The figured rocks are not confined within a small space as at the Meraviglie, but are spread over a vast region. For our own convenience in exploring it, we were obliged to map it out as best we could, into many separate districts, divided as far as possible by the natural configuration of the land, and since doing this we have devoted some days to each of them. We have also carefully noted the position of many of those rocks which are the most interesting or conspicuous from their colour or from the number or nature of the figures inscribed upon them, and have given them names. This has been of great assistance to ourselves enabling us to coordinate the position of others or find again without great waste of time any particular engraving. We think this may also possibly be of use to others who hereafter may be inclined to come and see for themselves what we have so imperfectly described, or what, we may perhaps say, cannot really be described. Notwithstanding our 45 days spent there, often for 8-10 hours together, we still feel sure that there is much to explore, and much more to be seen. Each year and almost at each visit we have lit upon some figured rocks not observed before, sometimes quite close to well-known ones, sometimes in the more out of the way parts. In many places where we had not dreamed of looking for anything, as the rocks seemed too rough or too shorn of any of the coloured surface which lent itself to the sculptors, we have found innumerable figures. Still more unexpected and surprising have been discoveries of hitherto unseen engravings on rocks which we thought to be thoroughly well known by us. Long practice has enabled us to descry the remains of figures, nearly worn away, which were at first invisible. Even now we are often unable for a long time to rediscover on some particular rock the figure, it

may be of a weapon or even of a plough, which we know to be there. According to the conditions of the weather or the time of day, figures may be clear or may be hidden. Fresh streams of water after rain may be running over the figures and hiding them, or the difference of colour between the engravings and the non-engraved surface may be greatly diminished when the rock is simply wet. Figures may be so much obliterated that only a certain light will bring the very slight depression into relief or a little change of position will reveal a figure. It has sometimes been said to us by friends who could not discern what we pointed out, that our enthusiasm and expectations led us to see more than was really there to be seen; but we have been able to prove ourselves right by at once making a hasty and rough rubbing from the rock, and producing on the paper the lineaments of the figure. Not seldom however, a figure which is clear to the eye does not come out well on paper. Close by one may be unable to detect the slightly different shades of colour which are plain further off, or in the case of squeezes the engraving is not deep enough to leave a good impress on the paper. In many cases we must confess that we are not sure about the outlines as originally cut. The wear and tear of the rock surfaces, the cracks in the stone, the natural glacier markings or others which simulate lines and dots, and the interlacing of the figures when crowded together, often make it extremely difficult to be sure about the contour. Our reproductions are not as accurate as those of M. Rivière's. In the case of rubbings we have not found it possible to follow all the jagged edges and outlying dots which many of the badly executed engravings exhibit, but we may confidently say that they faithfully represent the forms there depicted, such as the eye takes in and which photographs of ordinary size shew. Some of our drawings may be and probably are more or less inaccurate, as are to our knowledge many of those reproduced in other published plates; but we have always endeavoured to copy as accurately as possible.

At first sight we might say that the rock figures of Val Fontanalba are just the same as the Meraviglie ones. Certainly the valley itself is widely different. We are no longer in the "valley of hell", shut in by high peaks, and having to find our way among great boulders and over rough scree. Flowery meadows and pleasant slopes of trees fill the lower half, and when we reach the higher part and these cease, there is a wide open expanse of rock, gradually sloping up to the foot

of Monte Bego and Monte Santa Maria, from which are grand views of mountains far away, M. Marguareis, M. Gioje and the Pizzo d'Ormea. It seems indeed a veritable desert of rock, but as one wanders upon it one lights upon numerous little lakes, and ponds, and many shady gullies and oases of grass and flowers. And presently one comes to find out that the rock figures though similar are different. The rock itself is of the same nature; the figures are punched in the same way; but there are other types of weapons, other types of horned animals and other geometrical figures.

As at the Meraviglie the figures of oxen predominate, and there is an infinite variety of them. Some possibly represent other creatures, but we shall call them all oxen partly for convenience, and partly because we believe most of them to be so. They are often crowded, 20, 30 or 40 together on some of the rocks, and are still more conspicuous than those at the Meraviglie. On one rock there are a dozen in a space 40 c. square (Plate XI). Many have ears clearly figured (Plate III, *a*), but a much larger number four legs and a tail (Plate IV, *a*); or the legs only, but these are very rare (Plate IV, *b*); or the tail without legs, and this occasionally represented in an exaggerated form of great length or with a large square lash or knob at the end (Plate III, *b*). When first we saw some of these curious figures in which the horns are out of all proportion to the length of the body or legs, and especially when there appeared to be six legs (Plate IV, *c*), we thought they represented beetles with their long and flexible antennæ, or some sort of insect; but we are now convinced that this was the sculptor's way of denoting an animal more clearly when he wished to do so. Whether the commoner forms of a rectangle or oval without any appendage but the pair of horns, represent a head or body we cannot say; but we imagine they were merely the symbol of an ox, which occasionally was attempted to be drawn more realistically. One cannot but be struck by the large dimensions of many of these figures (Plate III, *c*, and VIII, *a, b, c, d*). Many are 45-55 c. long; one with four legs and a tail is 75 c. long, of which the horns are 52 c. Another has a distinct head as well as body, together 25 c. long, without legs or tail, but the horns are 59 c.; in all 84 c. Another with body and tail which together are 47 c. long, has a kind of projection on the head, and zigzag horns of the amazing length of 1 m. 28 c.

so that this figure in all is 1 m. 75 c. long (Plate IV, *d*). Another with a small rectangular head or body only 5 c. long by 2 c. broad, has horns which extend horizontally in a rounded zigzag, and the entire breadth of the figure is over a metre (Plate IV, *e*). But while large beasts abound, others are extremely small and most delicately executed, with the fine narrow lines of the horns so evenly cut that they look almost as if done by a knife. One of these is only a little over 3 c. long by 2 $\frac{1}{2}$ c. wide (Plate X, *a*). Some have double horns (Plate IV, *f*) a very few branching ones (Plate III, *d*), or with a spot between them (Plate IX, *a*), but we have not noticed any cross or other ornaments as at the Meraviglie. They are often drawn three together, one close above the other and generally in decreasing size (Plate X, *a*). The horns and the bodies also, are of a great variety of forms, numbers of them utterly unlike those of any known creatures. Occasionally the figures of oxen have been so arranged that they form what seem to be quite other figures, as for instance, when two are cut facing one another, or when several have their horns joined to form a circle, or when the bodies are united to make a rectangle and the horns are turned away from each other in opposite directions.

Finally, a pair of oxen are often yoked together (Plate III, *e*), and there are a few figures of four oxen yoked, (Plate X, *b*), and one of six (Plate IX, *b*). Many of these have besides a ploughshare, and a few of them what appears to be a hurdle, or harrow (Plate VII *b*). In some of these latter figures the cross bars are not punched but have been cut.

Allied to these figures of animals with horns are others without horns which seem to represent the skins of animals (Plate V, *a*). These are rough rectangles, entirely punched out, and generally of large dimensions, with two legs at two of the corners, or with four, or either of these with the addition of a tail. These figures are nearly all on rocks not far from one another, and one rock has a large number of them. Occasionally a kind of semicircular line has been added to each side of the skin, and the spaces thus enclosed may be divided by a horizontal bar giving to the figure some resemblance to a butterfly (Plate V, *b*, *c*), and sometimes the tail has been prolonged and wanders away along the rock for some metres. There are also figures of skins with large spots cut here and there round them, as if by way of ornament (Plate V, *d*). Prof. Issel suggests that these spots may represent the stones

with which the skins were fastened down while being dried. There are, however, other figures certainly not of skins, with the same kind of addition. In the same part of the valley are others of rectangles with loops (Plate V, *e*). It is difficult to say whether some of these belong to the group of horned animals or skins or to the group of which we shall speak next.

These are the geometrical figures and others akin to them. There are circles, ovals, squares and rectangles, but they are not common; and there are these with horizontal and perpendicular lines, more or less like the Meraviglie ones (Plate V). But Val Fontanalba has another type of design, which is very common, in which a rectangle or form approaching it, always forms a part, this rectangle being entirely cut out. There are rectangles with a simple straight line, much like a garden spade (Plate V, *f*), or with a closed curve uniting two of its angles, giving the idea of a basket with its handle (Plate V, *g*). Often two of these are united by a straight line (Plate V, *h*), or many of them are joined together (Plate VI, *a*). One rock which we have named "the Tapestry Rock" as the whole surface presents the appearance of an elaborately patterned carpet, has hardly anything else but figures of the shape of the Egyptian Cartouche, with connecting lines between them. Very beautiful must this rock have been long ago, with its bright orange surface, and the grey patterns upon it. Often the spaces enclosed within the curves are ornamented with dots made by single blows of the instrument which the sculptors used or with larger spots made by a number of blows, and these latter are sometimes more deeply incised and arranged in rows, and may be cut out, not punched (Plate V, *i*). One figure has three rectangles, and four spaces enclosed by lines of which two are untouched, and of the others one has small and one large dots (Plate V, *k*). Perhaps some of the plain rectangular figures were unfinished ones, which the addition of horns would have turned into figures of oxen, or that of legs and tail into the figure of a skin. As these rectangles with the addition of the straight or curved lines occur so repeatedly in all this district, it is difficult not to believe that they were symbols of some common thing, always beneath the eyes of the sculptors, and we cannot help thinking that they were symbols of the huts which the people inhabited and of the enclosures around them, in which their cattle and perhaps sheep also were folded in the valleys below. In the heart of the mountains, far from the grow-

ing civilization of towns, things do not change much, and one probably sees to-day much the same as was to be seen ages ago. The Valleys of Casterino, Fontanalba, Valmasca and the Miniera have many cattlesheds, used for about two to three months in the summer. At all of these are one, two, three or more small rectangular sheds, with walls roughly made of the loose stones which everywhere lie about and with roof of big boughs or trunks of the larch trees covered over with sods of turf. The better and more modern ones have a ridge pole and sawn planks, but not all, and the huts of shepherds and goatherds, which are more miserable and dirty than those of the cowherds, and which one may take to represent a lower state of civilization, have only branches of trees laid across the two low side walls. Where the sheep and goats sleep, there is not always any enclosure, but the cowsheds have usually a rough sort of paling made of larch poles, and looking down on these enclosures from the hills above, we have often been struck with the similarity of their appearance to that of the rock figures. When the cattle come down towards evening from their higher pastures, and are standing or lying about in the enclosures, while the milking is going on, we have wondered if those ornamental dots within the curves of the engravings might be the symbol of this scene. Perhaps this idea of ours is a far-fetched fancy, but there is certainly a strange resemblance. Then well-beaten tracks lead up to the sheds where the butter and cheese are made or stored, or where the men sleep, and there are also other tracks by which their beasts daily pass till they reach the places where they are to wander about grazing where they will. These paths also one clearly sees from above. On going up the right bank of the Fontanalba valley, one looks across to one of these Margherie on the other side of the stream, where are remains of old walls, how old we cannot say. This part of the valley was cultivated, they say, a hundred years ago. The larch trees were sold by the Commune for five sous apiece, and people cut them down a metre above the ground, leaving the base of the trunks still standing. There are numberless heaps of stones lying about, probably the remains of old huts, and some of these and the longer walls now stand out in relief among the grass like the geometrical figures on the rocks.

Of greater interest than the figures already mentioned are those of men, and while the Meraviglie region does not boast of more

than two or three. Val Fontanalba has an abundance of them. There are only a few isolated human figures, that are not connected with any others; we only know about six or seven of them (Plate VII, *a*). But there are very many where a man is holding the handle of a plough (Plate VII), and other men, ploughboys in fact, are standing near, in front of or alongside of the oxen; and also very many where the man is holding aloft some kind of implement or weapon (Plate VII).

It was a long time before we realized that these designs with two horned heads joined together by a horizontal line with another vertical line intersecting it and with a human figures below, pictured a plough. We had not observed, or rather not paid attention to the little inclined line at the bottom of the vertical one which indicates the ploughshare. We had seen the pairs of oxen joined together, and the vertical line with them, these being probably an unfinished picture, and when we came across the same with the addition of the man we thought he was holding up a pole with heads fastened upon it, and we imagined a sacrificial offering or a trophy of the chase. The fact is that one is not accustomed to look down from above at the operation of ploughing, and to see the whole length of the oxen's backs and the pole between them. As far as we have been able to ascertain, no other rock pictures are known in which a plough is so delineated, though figures of ploughing, cut or painted, are common enough in many parts of the world. They are all, whether in Egypt, S. Africa, Ireland, or Scandinavia, represented as one would naturally see them in a field, that is in profile. But if an ox be seen from above, and neither legs nor tail be visible, its shape is very much that of a rectangle with horns. One of these ploughs with ploughmen was seen and a drawing of it published by Prof. Celesia, but he does not allude to it, except possibly when he speaks of "Men in strange attitudes", and no one has said that there are any figures of ploughs at the Meraviglie. The shepherds who know these rocks are not aware that there are these ploughs, for I have asked them.

This is certainly an interesting discovery, and it at once suggests that some at least of the prehistoric sculptors were engaged in agriculture. But it was not among the wilderness of glaciated rocks or boulders at an elevation of 2100 m. and more that they ploughed. There the land has never been cultivated.

Cattle ascend now-a-days for a short period, generally for a fortnight or three weeks, to the highest Margheria in Val Fontanalba, but they cannot cross those smooth and steep rocks, wonderful climbers though they be, and the grass there is too scanty and too coarse for them. Even the goats and sheep only pass over there occasionally on their way to better pasture elsewhere. But ages ago, Val Casterino and the lower parts of the Miniera valley may well have been tilled as they are now, and terraces long since abandoned are still to be discerned far up the steep mountain sides. Here then lower down where the summer is longer and the soil richer and the pasture more abundant, people who stood on the terraces might have looked down at the ploughing in the flat land of the valley, or on other terraces beneath them, and seen the operation from above as it seems to be depicted on the rocks of the higher regions.

One summer towards the end of August, the month when all those modern inscriptions seem to have been made, we were delighted to see a man with his oxen and very rough primitive plough appear on the opposite side of our Casterino valley, and begin ploughing a little strip of level land between the river and the terraces above. We at once sallied out to observe him. That day he was too far off the hill, but the next day he was near the foot, and as we stood on the third terrace above, we took a snapshot of him. We were only watching the ploughman and his oxen, one hand on the handle of the plough, the other arm lifted up holding a stick for a whip, and so we paid no attention to another man who was in the field scattering manure. When we developed our little photograph, to our great surprise and delight, we found a second figure just in front of the plough with uplifted arms, and the likeness to some of those engravings on the rocks is singularly striking (Plate XII). Surely then those engravings are realistic drawings of what the agricultural sculptors were accustomed to see, and if sometimes they added legs and tail at right angles to the sides of the rectangle, they did so to emphasize the fact that their picture was that of a quadruped. Now the pair of animals depicted with the plough are of the most diverse shape, often of very unequal size, and with sometimes long zigzag horns unlike those of any known species of cattle (Plate IV, *d*). We have therefore come to the conclusion that the greater number of figures of horned beasts cut upon the rocks are probably symbols of oxen, and that

it is not necessary, here at least, to try and find any resemblance to all sorts of wild animals. As a matter of fact, countless figures are engraved where the horns are not only unlike those of any known forms, but unlike those of any other animals living or extinct. At the same time it is only fair to say that none of these extraordinary forms are given with the engravings of a plough, either in Val Fontanalba or at the Meraviglie. It may be that the sculptors of the Meraviglie figures, with their daggers and swords, were hardly at all an agricultural tribe, and that they were a different tribe or of a different epoch we firmly believe. Those who are acquainted with the various forms of weapons of the bronze period, can probably say if the Meraviglie ones were of an earlier or of a later date than those depicted in Val Fontanalba.

In Val Fontanalba we know of nearly a hundred figures of men with ploughs, the man being drawn either upright or turned sideways; but he is nearly always holding the handle of a plough, and the ploughshare is generally very distinctly cut. The rocks are sometimes so worn that in certain figures we cannot be sure if the man was originally there, but often what seem to be legs or an arm are still visible. Two engravings have three human figures, the ploughman and two assistants (Plate VII, *c*), and several have two. Some of the figures of the men are really well drawn, with the feet strongly marked, others very indifferently. The man is occasionally larger than the oxen, sometimes absurdly small in proportion (Plate VIII, *c*). In one figure he is merely represented by a series of dots, as we may say "reduced to a skeleton". We had the pleasure of completely disinterring one of the most beautifully drawn figures, in an excellent state of preservation, in which the horns and yoke of the oxen were at first only just visible above the surface of the soil. There is one figure of a man with three oxen (Plate VII, *d*), and there are two of a man with four (Plate VII, *e*).

The figures of weapons and implements are less numerous in Val Fontanalba than at the Meraviglie, or at least they form a smaller proportion of the entire engravings. They are not so large and conspicuous, and rarely in any large numbers, not being more than 6-12 together on the same rock. But a few are of great interest, those with the indications of nails. Of these there are many, though only one of considerable size (Plate VI, *b*). This

according to Mr Arthur Evans, fairly represents a well-known form of halberd of the early Bronze Age, perhaps of the date 1000-1500 B. C. Dr Lissauer of Berlin believes it to have been the weapon which distinguished the head of a tribe. There are also figures of hammers, knives, lances and picks, and a few arrow-heads (Plate VII, *c*). One appears to be a scythe (Plate VI, *d*), one an axe, (Plate VI, *e*), and one much resembles a flail (Plate VI, *f*). But the absence of the large engravings of swords and daggers is more than compensated for by the numerous ones of men holding up a weapon or ensign, generally with both arms, at the end of a pole. There are two rocks, far apart, on which are four of these figures close together. The handles are usually represented as of great length 2-4 times the height of the man. In one figure the man is 8 c. long, and the implement 50 c. : in another the weapon is 4 times the length of the man. Three of these figures have the pole or handle ornamented with knobs (Plate VII, *f*), and sometimes these handles have either been cut instead of punched, or, as seems, more likely, a natural glacier marking on the rock has been taken advantage of and either deepened or emphasized by the addition of the knobs.

As at the Meraviglie, so here are a certain number of strange figures which do not find a place in one of the above mentioned groups. Perhaps the most unique one is a spiral of several whorls starting from a small circle (Plate IX, *c*). The spiral was certainly an ornament well known and much used in the Bronze Age. If it had any meaning or was used by the Fontanalba sculptors, it is remarkable that there should be only one such figure.

We have not seen any modern inscriptions of earlier date than 1727. There are others of 1795, and more abundant ones of the nineteenth century. An alpine guide from Tenda to whom I spoke about the engravings generally, told me that he had not himself seen any of them in Val Fontanalba, but he believed there were some figures of dogs and horses. These are in fact the only figures which interest the shepherds, cowherds or guides who pass by, and it appears that they are well known. One is of a horse scratched on a very hard perpendicular surface with date 1835; the other, really interesting on account of its spirited drawing, is a figure of Napoleon the third on horseback with dogs, women offering flowers to the soldiers, etc. It bears the inscription: "Ti Napoleon torna i la tua Francia e lasia il Piemonte. Giuseppe

Lanterio di Tenda 1849". Under this is written "li 30 Agosto 1849 Anno della Repubblica e de la libertà!", which shews that the writer was a disciple of Mazzini, and disapproved of the suppression of the Roman Republic. In Val Fontanalba we have only seen one attempt to imitate an old engraving. The shepherds scratch their names and the places they come from. The dates are always August, for the snow lies late, and early in September all the flocks go down towards the lower valleys. As for the prehistoric figures they have evidently hardly been noticed. When a friend of mine passed by the Upper Margheria in Val Fontanalba last summer, and enquired of the men there if they knew the whereabouts of the figured rocks, they replied that they knew that there were some, but had not seen them. Yet within twenty metres of their cowsheds and close to the well trodden path on either side are many rocks covered all over with figures. We suppose they had heard of the fame of "the Napoleon rock", but they had not seen it, as it is far away near Monte Bego where the cattle never go.



CHAPTER V.

Description of the Val Fontanalba region

The following short description of the Val Fontanalba region will naturally only be of any interest to persons who may in the future visit it. Guides who know it are not to be found, and those who have but little time at their disposal may be glad to have that assistance which we think we can give them, and which may prevent them from wandering about as Prof. Celesia did and finding nothing. We divide it into seven parts.

1. The Fontanalba hillside.

If we proceed up the left bank of the valley till we have passed the lower cattle-shed and crossed just beyond it, a stream descending from the Lago di Fontanalba, and then ascended to some meadows higher up; or if we have chosen the right bank and reached a spot opposite to these meadows, we see all the hillside north of the valley and below the ridge which culminates in Monte Santa Maria. Some way further west a spur from the ridge runs down to the river and almost closes the valley. On the hillside between the Lago di Fontanalba and this spur are the nearest engraved rocks, which may be reached in an hour and a half from Val Casterino. Looking up at the hill, we can hardly fail to observe, near the highest of the scattered larches, a flat square shaped mass of rock, usually shining in the sunlight, and further on near the spur some other masses of smooth-looking rock at a rather higher level. If we walk up the meadows straight towards the first of these rocks and continue some way up the mountain side, we shall come to large flat rock surfaces, some partly yellow, and some now quite grey with all superficial colouring long worn away, and very much weathered. Here the figures begin. The rocks seem to have been covered with them, but the greater number are no longer clearly visible. They look rather darker than the surrounding surface. Here are several unique heads with double parallel horns, and one very large square completely punched out, with a pair

of horns. A little higher up is a rock with an excellent figure of a plough and oxen, with a man represented sideways; also one of the common sets of three beasts close together, one above the other, and a unique one with small triangular head. The shining square rock is another thirty metres higher up, and has five figures of the rectangle with single line, the "spade" pattern, and a head with double parallel upright horns and a transverse bar across them (Plate IV). The rocks farther westward, not easily found, have not much, but there is at least one unique figure of a circle with cross diameters and standing as it were upon five legs (Plate IX). This is figured by Prof. Celesia.

2. *The ridge or spur between the Santa Maria crest and Lago Verde*

Ascending the valley on the left bank we come to the middle Margheria just under the eastern side of the spur. If we climb up the steep hillside of slaty scree and tufts of coarse grass in the direction of Monte Santa Maria, to the right of the Margheria — and it is an arduous toil under a summer sun — we reach a little stream in a slight depression, which widens into a deeper valley down to the river. Crossing this and climbing up the rocks opposite, still below the crest of the ridge, we find a long narrow slope of grass some 50-60 metres long, bounded on the right by a low sloping bank of red rock. This we have named the "Via Sacra" picturing to ourselves that it was a favourite way by which our prehistoric friends went up to the higher regions beyond, and attractive to them as being the nearest piece of highly coloured surface. This red slope is covered in nearly all its length with engravings, of which there are about a hundred. Prof. Celesia evidently visited this, as he has reproduced some of the figures. There is one of a pair of oxen yoked to a plough, another of the same with a human figure; one of a man alone, and another of a man holding up a weapon. There are also geometrical figures, many strange forms of horns, an axe, and a particularly clear and interesting engraving of what we call a cattleshed and enclosure (Plate VI, g). This, besides three rectangles and two enclosed spaces, has also two circles, one within an enclosure and the other just outside but connected by a line, suggesting two ponds. A part of this rock is given in Plate XIV. Near the crest of this ridge a little west of the "Via Sacra" are two small lakes from which is a lovely view in all directions (Plate XV, i). Beyond them

northwards are figures scattered here and there, extending some distance up the Valletta di Santa Maria, which is a ravine leading to a depression in the crest of the mountain and is the shortest route to the top. If we turn south from the two lakes we shall find many figured rocks, especially at that part of the hill which overlooks a little pond near the upper Margheria. The ridge terminates very steeply above the Lago Verde. At the foot runs a path, on either side of which are most interesting rocks, very hard and with figures of rectangles and oxen deeply cut, and which have the appearance of very great antiquity. One is figured in Plate XV, 2. There are others close to the Margheria, with figures of arrow heads (Plate VI, c), and a head with four horns (Plate IV, h). There are also a few figures on the northern slope of the spur overlooking a valley of marshy land.

3. *The Marshy Valley, "Skin Hill", and the Santa Maria rocks.*

From the head of Lago Verde we turn up the valley west of the spur just described, passing a good deal of boggy ground, intersected by many small clear runnels lying deep among moss and cottongrass. In the middle of this valley we pass some rocks between which the main stream flows. On one of these are two of the strange figures of rectangles with loops. We then proceed up the hill on the left bank of the stream, which has its rise in a lake of considerable size near the Baissa di Fontanalba. Here are many much worn and splintered rocks with a reddish-yellow surface, all of which are engraved. This is the region of the "skin" figures, but besides them there are figures of men, and ploughs. On one of the most conspicuous of these rocks, not far up the hill, is a unique figure of two oxen yoked with the plough-share, the beasts being of strangely different proportions, one with long zigzag horns 113 c. long, the other with short rounded horns measuring only 30 c. (Plate IV, g). This is one of those figures which induces us to think that all the horned things may be the symbols for oxen. On a rock further north, difficult to locate, is another curious figure, quite unique, which looks something like a gigantic centipede (Plate IX, d), but may be much the same as the looped skins. All these rocks have here and there pieces of smooth yellow surface, but they are not rounded by the ice. One higher up is very striking, as a little grass plateau stands in front of it, and from a long way off the crowded figures may



be seen standing out in strong relief on its nearly perpendicular and polished yellow surface (Plate XVI). A man with a plough and three oxen, a man holding up a weapon (Plate VII, *g*), a rectangle or skin ornamented with loops, together with many beasts enclosed within a very large oblong, are among the most notable. Close by on the same level are more yellow rocks, with the man and plough which we disinterred and some tiny figures of oxen most delicately cut. A little above this the character of the rock surface changes, and all are glacier-polished, little worn and with smooth yellow surface like those across the stream. As this change is so conspicuous, we have called this upper part the "Santa Maria rocks." It is bounded by the stream and the steep slopes of M. Santa Maria. Numerous little gullies run down between the longitudinal folds of rock, and the exploration of this part is long and difficult, as one must be continually ascending and descending if one desires to see the figures. Here are some of the very large rectangles, also a curious set of figures of oxen all on the same rock, in which the body, horns and legs are all of the same breadth (Plate IV, *i*). If we continue to climb, we shall suddenly come upon a most unexpected sight, different to anything hitherto seen. This is a long broad smooth rock, steeply inclined, but without folds or breaks, and of a marvellous colour. It lies close under the mountain and must be 50 or more metres long (Plate XVII). From the hills far away on the other side of the Fontanalba valley one can plainly distinguish this blood-red mass, which is one of the most brilliant and polished in the whole region. All sorts of strange things are here engraved, weapons, geometrical figures, and numberless oxen. In one part are about 45 horned beasts all close together. Here is the figure which has the body only outlined, with a vertical stripe down the centre (Plate III, *f*). There is a man with plough, and below are many complicated figures joined together, forming an elaborate design without break, and running down the rock for many metres. Many of the designs are so large that we have been unable to take any rubbings of them. Somewhere high up on the rock is a large figure of an implement, of which we made a drawing in 1898, but which we have since often tried to find again but in vain (Plate VI, *h*). Possibly some rock fallen down from the steep sides of M. Santa Maria may have hidden it. This great glacier-like surface is so polished and steeply inclined that it is extremely difficult to lie

upon it without slipping, and still more not to deface its beautiful surface with the desecrating scratches of alpine nailed boots. Beyond this rock and rather higher up is rougher highly coloured rock, on which there is very little except one good figure of a square-shaped man with plough, and higher still towards the mountain crest one of a weapon.

4. *The central grey mass.*

From Lago Verde and from the two little lakes on the spur above it we have a fine view of the great central mass (Plate XVIII, 1, and XV, 1), which is such a striking object in the Fontanalba valley. From the first of the meadows on mounting the valley we can just catch a glimpse of the higher part of it, showing over the spur of Santa Maria. It looks quite different to all the other part of the valley and of the mountains around on account of its almost white colour, and in some lights we might almost take it for a glacier, flowing close under the rocks of M. Santa Maria, so white and so smooth does it appear, except for certain red patches here and there. But like glaciers it is not as smooth as it seems to be. There are innumerable little gullies and perpendicular cliffs or steeply sloping rocks that cannot be climbed. There are a few larch trees near the base, but above only patches of grass here and there, hardly visible from any distance. I have never seen any rock mass of such a striking kind, and it is all the more so because up to Lago Verde are the flowery meadows and pleasant woods. Then suddenly one finds oneself face to face with this great mass, its base extending from near the lake at 2130 m. to the end of the marshy valley, and its surface sloping up to the Baissa di Fontanalba at 2500 m. Dr. Mader says that he doubts if there be in all the Alps another mass of glaciated rock which is so remarkable, whether we consider its extensive area, its almost absolute barrenness or its moderate incline. On the north it is bounded for the most part by the stream from the upper lake and on the south by very clearly marked highish cliffs. All the way up near the stream are numbers of most interesting rocks. Just above the marshes is a rock covered with very worn figures, many of which are no longer clearly defined, but among them is one of yoked oxen with a large harrow or hurdle between them (Plate X, c). There is also a skin of the proportions of 64c. ~~× 24c.~~ If the writers who have spoken of the light and

easy amusement of cutting these things by way of pastime had seen such an engraving as this, they would have changed their opinions. It was no rapid or facile a task to punch out completely a figure of these proportions. Considerably higher up and close to the stream are a series of four smooth red rock masses, visible from far away, the lower one of which we call "the Armour Rock" on account of the large number of weapons upon it, besides innumerable oxen and geometrical designs. The next but one above it, the "Castle Rock", has a large and long rectangle, some of the divisions of which are punched and some left empty (Plate V, 1). Near it are many beautifully cut figures of oxen. The last of the series has two horned figures, but with their long thick incurving horns and long tail more suggestive of lobsters or scorpions than of oxen, and close below them is a delicate design of a man with plough. Further up again, opposite the "Santa Maria rock" and quite close to the stream are more designs of men with ploughs.

We then reach two small ponds, below which may one day be discovered by future visitors our own inconspicuous initials C. B. and L. P. with the date 1898 cut with our penknives, and with the additions in 1901 of a small circle enclosing a cross, and five spots representing the five chief stars in the Constellation Cassiopea. These latter were votive offerings. The first, my own, I cut owing to a request from a friend on behalf of a lady who was to undergo an operation. This friend, interested in our researches and more in earnest than in joke, had suggested this to me, and I in the same spirit seriously acceded to his request, and went up the next day to this particular spot where the smooth yellow rocks are quite unscored, and cut my prayer to be "graven whith an iron pen... in the rock for ever". My companion, unknown to me, did likewise, and told me afterwards of his poetical five stars. If ever we should return, we will certainly add something, as our thank-offerings that the operation was most successful. Did not the prehistoric sculptors do the same? We feel sure that after having lived day by day walking in their footsteps and studying their memorials, we have come to understand something of their spirit, and know that to them their marks had a deeper meaning than the idle modern scratchings and drawings of today, done by people who habitually write. Beyond the ponds the rocks become rougher and continue so to the upper lake, and the absence of the smooth polished surfaces suggests that it is useless to look for figures.

Nevertheless here also a little to the left up a narrow grass glade beyond the ponds is a rock with several ploughs and other figures cut on a very large scale. These are very clear to the eye, but so slightly punched or so worn away that our squeezes proved complete failures.

If from here we cross over the rocks due south, we can hardly help arriving at two very large surfaces, perhaps of all the most remarkable (Plate XVIII, *z*). Both are wonderfully smooth, with scarcely a crack or fissure, and with no erratic blocks or loose stones lying upon them, unless perhaps we have left any of those which we have carried up to hold down our papers while making our drawings or squeezes in a high wind. These are excellent surfaces for engravings, but the figures are comparatively few, though of first-rate quality and large dimensions. On the lower and smaller surface is one of the very best of the ploughs with three human figures (Plate XIX). On the upper one, a smooth unbroken surface a hundred metres long, are the large halberd (Plate VI, *b*), and other weapons and many figures of oxen. Below the lower of these, straight down towards the marshy valley, is a long narrow red rock with the figures of an ox with zigzag horns 1 m. 75 c. long (Plate IV, *d*), a plough with man and pair of oxen, and other rocks close by with geometrical designs; also a large human figure, the strange design 1 m. 66 c. long (Plate IX, *e*), and numerous other things which it would be wearisome to speak of. There are many other parts of this large central mass with numerous figures, but it is quite impossible to explain their position to others, and difficult for ourselves to find them when we want. Somewhere about the centre is a large loose block underneath which are figures which could not have been cut after the rock had been brought to rest there.

5. *The small gully.*

If we walk for about 100 yards in the direction of Monte Bego from the great smooth surface with the halberd figure just described, we reach the edge of a cliff, and see at its foot a kind of valley of smooth yellow rocks, rapidly narrowing into a deep gully below. There are one or two places where it is easy to descend, but between them it is difficult or impossible. The rocks are mostly brilliantly coloured and more or less covered with figures in great variety. As one walks up one sees on the left a steep rock of

bright crimson hue, on which the figures of men with ploughs and many strange forms stand out in strong relief. At the head of this depression is a still steeper fan-shaped mass, also red but much broken and without figures, but close to its foot is a rock with four engravings of men holding weapons (Plate XXIII, 1). A little below this to the north, under the prolongation of the cliff, is one of a man with plough which can hardly be said to be cut out, but rather delineated by lines of dots, as if it were the first sketch for a work that was never finished. Near this we unearthed a good figure of a horned beast, the top of which was only just visible above the soil. Lower down close under the cliff is the only figure we know of in which the short horizontal zigzag horns much suggest the head of a ram (Plate III, g). This region which we call "the small gully" really unites with the great central mass lower down and is only a triangular portion of it mostly at a lower level. On the other or southern side of it is the great cliff which cuts off all the central mass from the region next to be described.

6. *The hillside beyond Lago Verde.*

Starting again from the head of the lake, and proceeding up slopes of grass through which several rivulets flow, in the direction of M. Begò, we reach in about ten minutes a spot from which we see a wall of rock across the valley, and beneath it a gully running high up to the right, where a patch of snow generally rests up to September, or may even never wholly melt. Between L. Verde and this rock barrier are surfaces here and there engraved, and notably just under the cliff. On the right or north of the valley are slopes with much grass and some scattered larches, more gently inclined lower down, but higher up much steeper. The rocks are of bright colour, with smooth surfaces, and more or less horizontal. Some of the most brilliant and conspicuous are those nearest to Lago Verde, just across the rivulet which comes down under the great cliff dividing all this region from the grey central mass and from the small gully last described. If we turn up where this rivulet comes down into the valley we reach in a few minutes the lowest of these very conspicuous rocks above a rock wall. The first surface has some strange figures of oxen with rows of small rectangles cut out between the horns (Plate IX, f). Just above is a rock with four engravings of men with weapons, and close by another with human figures. About 50 metres further on

westward and rather higher up is "the 300 rock", so named by us because it has over 300 engravings (Plate XXI and XXII, 1). From some distance off it presents the appearance of a piece of carpet, as its surface is covered all over with figures of ploughs, oxen and rectangles. Near this is another rock with weapons (Plate XX, 2), and beyond that again further westward a long flat surface "the Tapestry Rock", with a complicated labyrinth of figures. But it is not possible to detail all that is to be seen on these slopes. All the types of designs are well represented. Here are the triangular weapon (Plate VI, i), the six yoked oxen (Plate IX, δ), the curious form of dagger not wholly cut out (Plate VI, κ), a man with 4 oxen and plough (Plate VII, ε), etc. In the afternoon with the sun shining over M. Bego these smooth surfaces are lit up and shine brilliantly, and it is hot work lying on these reflecting surfaces takings rubbings of the figures (Plate XX, 1). Often, however, the clouds gather rapidly over M. Bego, the thunder rattles among the mountains, and in a few minutes a pelting storm comes on. Many a time our sheets of paper on which we had taken squeezes, and which were held down by stones to dry, were in a minute utterly spoiled, and before we could find any shelter, we were soaked through and through. But at other times we have lingered on towards sunset, watching the marvellous effects of light, and loath to leave the rocks just when all the engravings upon them were standing out more clearly, and every moment we were catching sight of something hardly visible before, but obliged to turn homeward to be back in V. Casterino before dark. During our last summer in the mountains we devoted three whole days to these slopes. Higher up where this hillside in all its length is much steeper, there is not much cut on the rocks, except towards the high cliff below the central mass. Continuing upwards on the south side of this we come to a little pond surrounded with engraved rocks. The figures continue for some distance beyond, but apparently end before reaching some little lakes, from which another steep climb brings us to the Baissa di Fontanalba, overlooking the upper Lago del Basto with the high mountains beyond it.

7. *The Monte Bego region.*

This, the last of our arbitrary but natural divisions, is almost as clearly marked as is the great central mass. The rocks are for

the most part not ice-worn and of a greyer colour. This region lies westward of the one last described, and fills up the space between the barrier cliff across the Fontanalba valley and the scree at the foot of M. Bego. Above the cliff are yellow rocks almost without engravings, and higher still are numberless smooth and brightly coloured surfaces, upon which there is nothing at all. One wonders why some places seem to have been quite unvisited by the sculptors, when material to work upon was so much better. Above these however are a few very interesting figured rocks, upon one of which are four weapons, the spiral figure, and a creature with horns, ears and tail, and on either side of the head a large spot, apparently representing the animal's eyes (Plate IX, *g*). But if when we reach the cliff at the end of the meadows, we mount up by a track on the left, we presently reach a higher distinct valley with a wilderness of scree on the south, and to the north steep slopes and a series of cliffs, and terraces between them. There is no water there except in the early summer, though there are always patches of snow near to the foot of M. Bego's precipices. In the valley itself are only a few figures, the best of which is one with small body and long waving horizontal horns, which might possibly represent a bat or a bird with outstretched wings, much like the figure Plate IV *e*. But under the cliff, chiefly on large fallen blocks of schist, are many engravings and near the end of the cliffs is the "Napoleon Rock" where are one of the best figures of a man with plough (Plate XXII, *2*), a weapon, and a strange and elaborate enclosure (Plate VI, *l*). This is a small region but rich in engravings. Some way beyond it, at a place where the goats often halt, is a series of figures looking rather newer and remarkable for having spots carved between the horns (Plate IX, *a*). Here again are an immense number of bright smooth yellow rocks, also quite untouched. We are then very near to the scree under the serrated ridge connecting M. Bego with the Baissa di Fontanalba. We have not found any figures between here and the upper lakes, but we have not had time to explore these parts thoroughly, and know from experience that in any place we may probably come across some single rock where a solitary sculptor has left his record. These highest figured rocks are at about 2500 m. The alpine flowers which love the damp stony places where the snow has long lain, abound, and in September we may find again some of the lovely

plants long withered up not so far below. And almost every day throughout the whole summer one may hear the sound of falling stones, and then catch sight of a herd of chamois crossing the scree or passing over the snow. They generally stop and watch us as we watch them, and then suddenly their leader starts off and the rest follow him, lightly galloping and leaping, as they only can, from rock to rock, and passing with ease and rapidity over the places where we can only walk with the greatest care and with wearisome slowness. Occasionally some chamois have crossed over the rocks quite close to us, as we lay silently making our drawings. They seemed to know that we carried no guns and much preferred seeing them alive than dead, enjoying their free alpine life. In 1897 we tried to bring up a little chamois whose mother had been shot. A goat gave it milk twice a day, but though the little creature seemed very well for some time, and was quite tame, playing with us and running up and down the stairs after us, one day it was suddenly taken ill. Mr James Berry F. R. C. S. and Mrs Dickinson Berry M. D. used their united skill, in hopes of saving its life, but in half an hour it died, to our great sorrow.



CHAPTER VI.

The Region of Val Valauretta and Val Valmasca.

There is very little to be said about these regions. The lower part of Val Valauretta consists of pleasant slopes of grass and trees frequented by a herd of about 400 white cattle. They come every year from Saluzzo to the Margheria del Bosco, which is the name of the cattle shed above the Miniera di Tenda, between it and Val Fontanalba, and they graze not only there, but on the hillsides west of the Val Casterino river and south of the Val Fontanalba one, and also in Val Valauretta; but they do not go up to the higher part of this valley, which is usually sublet to goatherds. We have seen a large number of chamois on the snow slope under the cliff of Monte Bego very little distant from their near relations the goats. All this upper part of the valley is a wild chaos of rocks. Somewhat above a tiny lake amid the larches, a miniature Lago Verde, and close under the Monte Bego precipices, may be seen a group of dark purple rocks. It is very difficult to find them when in the valley but they are most conspicuous from the ridge on the eastern side. Some of these have an almost horizontal surface, others are nearly perpendicular and less weather worn (Plate XXIII, 2). There does not seem to have ever been any superficial colouring on most of them. Only one or two are slightly red, but they all have a fairly smooth surface and the upright ones are more highly polished. These have a number of engravings, but while some are perfectly clear, the greater part are scarcely visible. The engravings are rather more deeply cut than is usual and this was no doubt necessary, if there was never any coating of different colour.

After about another quarter of an hour's scramble further on up the valley and also under the mountain, is another group of similar rocks also sculptured and of the same colour and texture. These are more easily seen and reached than the first as they lie near the foot of a steep scree by which the goats descend from the shoulder of Monte Bego, and it was on coming down this

ourselves, after an ascent of the mountain, that we lit upon them. These are all that we have discovered, but there may well be more. Perhaps there are a dozen rocks in all, and between 100-200 engravings. They are nearly all of the same type, rectangles entirely punched out with uniting lines straight or curved. We have found one outline of a rectangle, and one of an oblong with transverse lines (Plate X, *d*), but no representation of either weapon or horned head. To be sure there are lines cut at right angles which at first sight give the impression of horns, but on closer inspection we were convinced that these were only beginnings of rectangles. One of the clearest consists of a rectangle with curved enclosure united to a similar figure by a long line, the whole being about 1 m. 25 c. (Plate X, *e*). Another, of which we reproduce a portion only, is a complicated figure something like those on "the Tapestry Rock" in Val Fontanalba (Plate X, *f*). On all the smoother yellow rocks in the valley, where we have searched for figures, we have found nothing. Near the figures there are also a certain number of dots, of apparently a later date. They do not look very new, as if they had been done by the shepherds of the last few centuries; but as the rock is mostly of the same colour throughout, it is extremely difficult to say whether these simple single blows be really modern or not. We shall probably on some future occasion be able to find this out from the shepherds, some of whom, as we have only lately heard by fresh enquiries at Tenda, are aware of there being figures in Val Valauretta. But even the chamois hunter Sig. Palma knew nothing about these till he enquired for us. If there had been any drawings of Napoleon or of horses, it is probable that the fame of Val Valauretta would have spread. The most remarkable feature about the figures in this valley is, that there seem to be none of those forms which are the commonest in the other valleys, namely the oxen or horned animals.

Towards the centre of the wide gently sloping land between the upper Lago del Basto and the scree slopes of the Baissa di Valmasca is a huge erratic block, in the shadow of which the sheep may sometimes be seen reposing in the month of August; for here also the snow lies late and there is very little pasture. This block is a most conspicuous object, such a one as the great purple rock at the Meraviglie, and which might well have seemed a sacred stone fallen down from heaven to a little civilized people.

Not far from this are a considerable number of rocks with remains of an originally yellow superficies, but now extremely splintered. On a few of these are some badly executed and for the most part indistinct engravings. One figure of an ox or horned head is the only thing we have seen of which it was worth while to take a rubbing. But we have not gone over the whole ground, and higher up among the masses of large rocks there may be more. At no period, however, were there any large smooth surfaces inviting the prehistoric sculptors to make their drawings, and the region was further away from woods and cultivated land than all the others. Neither does it lie directly under the mighty cliffs and solemn summit of Monte Bego, which from this point are not visible, whereas from all the Fontanalba district they are the prominent features of the landscape. Except for the great deep lake, and the fine range of rocky peaks from the Grand Capelet to Monte Ciaminejas and the Cima di Lusiera, this region is little worth visiting, and we should not recommend any visitors who come to see the rock engravings to spend their time there, as we are convinced that there is very little, if anything, more to be discovered. At the same time we are not sure if the shepherds who informed Dr Mader that there were figures in Val Valmasca referred to these. We are rather surprised that they should have noticed these few and inconspicuous ones. It may be that there is still some other place which we do not know of. We have, however, spent some time in the Val Valmasca proper, examining in various parts of it the smoother or brighter rock surfaces, but we have not found there any signs of man's work. The question however naturally arises, who carved these figures, whether few or many? Were they the Meraviglie sculptors who went on still farther, crossing over the Baissa di Valvasca? Or were they the Fontanalba ones who descended to see the great deep mountain lake? If these figures had a more modern appearance, we might believe that they were made by shepherds in later times: but as they seem to be of the same date and character as the others, we can only suppose that a few persons, for some particular reason, elected for their memorials a more remote spot, still more hidden in the heart of the mountains.



CHAPTER VII.

The authorship and meaning of the Rock Engravings.

Some day perhaps we may come to know who were the people who covered those rocks with their marks, and be able to fix their date more approximately and give a better explanation of their meaning. Surely some traces of their habitations, or their weapons or their skulls may be discovered. Monsieur Rivière, who more than anyone else studied the "Meraviglie" by living there for twelve days, believes that the people were of Libyan origin. He finds a great resemblance between these figures and those cut on the rocks in a valley of the province of Soûs in Morocco. He says they are made in exactly the same manner by repeated blows of some blunt instrument, and moreover that some of the figures are identical. At the same time he admits that there are no drawings of weapons on the African rocks, and only "Une sorte de tête analogue à l'une de celles du premier groupe", although there are others very like the geometrical nets and hurdles of the Meraviglie. There are not, however, many possible methods of making figures upon hard rocks surfaces. Either the outlines may be delineated like the well known pictures of reindeer etc., on horns, or the figures may be entirely cut out; and a very primitive people, hunters and pastoral tribes in the heart of the wild mountains, could not have arrived at the perfection of skilled artists such as were the Egyptians and Assyrians. They would naturally either have scratched an outline or punched out their figures. Moreover as the weapons and horned heads are by far the most conspicuous forms with us, the entire resemblance to the figures in Morocco is not very great. De Albertis in his "Crociera del Corsaro" gives copies of the figures cut on the rocks in the island of Hierro in the Canary group, but these do not appear, as he himself allows, to have much, if any resemblance to ours. Some of the forms such as the circles have been made by the most diverse people in different parts of the world, and though few of these may have been sunworshippers it seems natural that they should

have attempted to draw those forms which they constantly looked upon in nature, whether they were the sun and moon in the sky or the large round eyes of their cattle, or the abundant white and yellow flowers growing everywhere beneath their feet. All over the world also the primitive weapons were necessarily of much the same shape.

Professor Lissauer of Berlin attributes these figures to the Iberian branch of the Mediterranean family. These as well as Ligurians were probably of African origin.

Prof. Celesia seems to have no doubt that Phoenicians were the authors of our rock figures, and that they were the people who discovered and worked the mines of Tenda. This seems to us very much more improbable. The mines are of lead, with only very small quantities of zinc, silver, and copper, and the Phoenicians did not know the use of lead. The memorials which they have left so abundantly are of a far higher class than our rude figures, though of course a very uncivilized mountain tribe could hardly have done anything better. No bronze weapons have hitherto been found in the well-known caves of the Ligurian coast, though they were abundant on the other side of the mountains in the valley of the Po. But if the weapons which are figured in our regions were of bronze, as the forms of many of the engravings undoubtedly indicate, tribes of Ligurians or others established in the mountains might have received bronze weapons in exchange for what they could supply, from other people who knew the passage of the Roia into Piedmont. The historian Guizot expressly says that the "Via Erculea" which passed from Antibes to Turbia crossed the Col di Tenda, so that weapons might have been procured from Phoenicians.

It is said to be a tradition in the neighbourhood that Hannibal's soldiers were the sculptors. We have never ourselves heard this but Mr Moggridge and M. Elisée Reclus affirm it. Mr Moggridge however, adds that "the authorship of those things which cannot otherwise be accounted for is popularly assigned to Hannibal", in our mountains, much in the same way as in other countries it is put down to the devil. Mr Bullock Hall, in his most interesting and exhaustive work "The Romans on the Riviera" does not suggest that Hannibal could ever have been in the region of Tenda, but even if he had, there is no reason why he should have ascended into these remote and lofty mountain valleys which

lead nowhere; and in no case can we imagine that his soldiers would have occupied themselves in drawing figures of ploughs and oxen. Some people in Tenda believe them to have been the work of the Saracens, who in the tenth century made raids upon the Ligurian coast and plundered the inhabitants, but they, as Mahometans, were forbidden by their creed to represent the forms of men and other living creatures. For the present therefore, we can only assert that the authors were tribes probably of African origin, either established somewhere in the neighbourhood and engaged in agriculture, or living by the chase, and as we have already said, we believe that the people who frequented the Meraviglie must have been different to those who visited the Fontanalba valley.

That the rock engravings are of very great antiquity, there can be no doubt. Probably the forms of the weapons figured would be sufficient to prove this, but the examination of the rocks themselves is enough to convince anyone that the figures might have been made almost any number of centuries or decades of centuries ago. Many of those surfaces which show no signs of fracture must be absolutely what they were when the polishing ice left them, and very slowly do marks of the old sculptors' tools become less clearly defined. It is only when the rock has a tendency to split into flakes that the figures are disappearing. One cannot but be struck by the very small amount of débris at their base. There are very few surfaces on which the water rests, and for the greater part of the year the larger number of them must be completely covered and protected by the snow. It is not likely that any of the figures were executed in places where it would have been most inconvenient and difficult to cut them; but many are now not only at the very bottom of the rocks, but are completely covered with soil, and extend to as much as half a metre underground. The soil has of course gradually risen, but certainly very slowly. We have never come across worms there and the coarse short grass and small alpine flowers do very little to raise the soil. On the more perpendicular surfaces, that is where the authors could not climb, the figures are low down. On others which are only steeply inclined, the sculptors would have had less difficulty in cutting them than we in copying them, who have often been obliged to be very careful not to slide down the slippery surface and tumble over the edge with a

drop perhaps of two or three metres. It is clear that the figures were never made, where any kind of ladder would have been necessary in order to reach the chosen place. There seems to us to be really no difference in the appearance of those inscriptions which have been made during the last 250 years, though as these are on rocks far away from one another we have been unable to compare them, and the difference may be more marked than we imagine. We were looking one day on our last visit for a date, 1795, which we had seen before, and suddenly caught a glimpse on a rock below us of something very white. We at once remarked that here was an inscription which must be absolutely new, and which we had never seen before; but it turned out to be the very one we were trying to find. We could not have believed that it would look so startlingly new. On the other hand there is a really great difference in the appearance of many of the old engravings, often very noticeable in those on the same rock. This induces us to believe that the practice of making these figures must have continued, though it may be only at distant intervals of time, through many centuries. If this be so, they would not have been made in large numbers at the same time by a crowd of people.

An alpine guide from Tenda once told us that he knew who had made the engravings at the Meraviglie. His grandmother had told him that the French soldiers had done them, for she remembered their being encamped in the neighbourhood. This would have been either in the year 1793 or more probably in 1800, but at any rate a century and a half after Gioffredo had called attention to them. A portion of a sword or other weapon discovered by a Mr Prout, formerly the English director of the mines of Tenda, may perhaps have been a memorial of their presence on the mountains near.

It has often been suggested that probably shepherds have always frequented these high regions from the very earliest times. But we do not think so, and rather that they have only been driven up more recently because pasture is no longer available below. Gradually all the lower valleys have become cultivated or the forests have been destroyed, and with the destruction of the trees the hillsides below have been rendered arid. When there was abundant grass on those now denuded slopes, the shepherds would have had no need to go elsewhere and to such far off places.

Even now there are not always flocks at the head of Val Fontanalba, and in 1901 the cowherds lower down had been unable to sublet those parts where their cattle could not go, and it was only after the 8th of September, when according to an old law all the grazing land becomes free to everyone, that we saw a herd of goats in the neighbourhood of the higher rock figures. Some shepherds have told us that year by year the flocks increase, and that they have constantly greater difficulty in finding pasture for them, but they do not think these wilder and higher regions used to be visited as they are now, partly on account of the reason given above, and partly because wolves used to abound in those parts, and the shepherds were loath to go there.

If the French or other large numbers of soldiers were ever at the Meraviglie, it is greatly to their credit that they did not deface the rocks. Were it not that their preservation is so greatly favoured by their nature and altitude, one would wish some of them at least whose beauty still remains such as "the 300 Rock" to be enclosed like others of the national monuments of Italy, among which they deserve a worthy place. We cannot sufficiently regret having ourselves been the authors of more than one desecration; for a man in our valley who knew of our repeated expeditions to the heights of Fontanalba, at last thought he ought to go and see for himself what it could possibly be which we found so interesting. A few days after we came across his name and a number of foolish sentences, scratched by him right across some of the most beautiful rocks, and there they will remain visible for centuries. We have ourselves tried to treat these rocks with becoming reverence as any other ancient monuments, and endeavoured to leave behind us as few scratches as possible. But notwithstanding all our care, our alpenstocks and nailed boots have often left their traces all too clearly.

We have not been able to detect either in the lower parts of Val Fontanalba or in Val Casterino, any signs of old encampments or mounds. We have examined some grottoes in the face of the limestone cliffs, but the nature of the rock floors shewed that it would be useless to attempt any digging there. As Lago Verde may well have been a centre of attraction to primitive people, and some of the rocks close by it have figures which seem to be among the oldest and rudest and simplest of all, roughly and deeply cut horns and rectangles, we determined to do a little work there,

and chose a large shelter formed by immense blocks, and where goatherds in modern times have built up a little wall at the entrance. Here we have made trenches in various directions but arrived at the rock below without discovering any signs of habitation, except a very little charcoal quite close to the surface. Also at the foot of many of the sculptured rocks we have cleared away the soil to some depth, not only to expose the buried figures, but to search for any pieces of flint or quartz or other objects. We have so often seen our own property run down the rocks and had a long search for it at the bottom, that we felt the prehistoric people might well have left some traces of their tools behind them. But we have found nothing. Others however with greater knowledge might know better where and how to search.

To the question, "why were these figures cut?" it seems to us that there is but one probable answer. We cannot believe that these thousands of engravings spread over this immense area were the work of people's idle hours and done for simple amusement. Those immense rectangles, those large figures of oxen, must have required great patience, and long time, if little or no skill. It is clear that the sculptors themselves often abandoned their work. We see figures of oxen in which the horns were not finished (Plate X, *g*, and VIII, *a. b*), and many a group of little holes presenting no very definite form is probably but the beginning of a figure, which lack of time, or patience or skill, hindered from being completed. One large rock surface we have named "the Rock of the Non-Persevering" on account of the conspicuous rectangular figures begun on a large scale and never finished. Those also which are as it were only indicated by dots, seem to be the rough sketch for a better work which was not executed. Everything tends to strengthen our convictions that the work was a serious one undertaken for some very definite reason. Hieroglyphical writing it surely cannot be, at least for the most part, since the figures are cut here and there, with scarcely ever any sign of order, and by so many different hands and at different epochs, even though a certain number are much the same as alphabetical forms found in the Canaries, in Crete, or in the South east of France and elsewhere, and which became the signs of early Cypriote or Aegean alphabets. Mr Moggridge states that he had been informed that in certain parts of India the natives flock to the higher regions upon the melting of the snow, and there engrave

mystic characters, as a notification to posterity, but we have not obtained any confirmation of this. But we believe that our sculptors also went up to their high places for the very definite purpose of making these figures, and that their object in so doing was a religious one. They were impelled to go, and they made their engravings according to their earnestness and their ability. Some of them had little eye for drawing, and some a very good one. The figures of the horned beasts may be cut with rare grace and symmetry or very roughly. The dots may be quite close and regular, the edges of the figures clean and straight, or the reverse. Some spaces are well and thoroughly cut out, and some not. We consider that many of the sculptors were real artists up to their lights. They did not copy the forms which others had made, but invented an infinite variety of new ones. They did not even try to copy the forms of things which they had seen. Whether the commonly recurring groups of three oxen together were done by the same hand, or as sometimes seems to be the case, by different hands, there is a certain artistic beauty about these groups, and the knobs along the poles of the uplifted weapons give the idea of being purely ornamental. So also, as we have already said, are many of the extraordinary horns such as no aurochs or deer or other animals which may once have existed in those mountains ever had. All these and many others, eland, ibex, chamois, or antelope may be figured, or domestic rams and goats as well as cattle, but there are an almost equal number of figures of horns of unknown shapes, and the same may be said about the forms of the heads or bodies which are square, rectangular, oval, oblong, circular or triangular. But all may well be the symbols of their oxen, seeing that the figures of animals yoked to ploughs and in great variety of form are so common.

It is also possible that the horns had other meanings as well, seeing that from the earliest times the ideas of horns of consecration or horns to avert the evil eye were so widely spread, ideas which have continued to our own days. This would account for the immense number of our horned figures, and we might well be disposed to accept this theory were it not that the explanation of an agricultural people with their herds seems to be a more natural one. The thinly drawn horned figures are undoubtedly a Phoenician sign, and might be so interpreted here, were it not that these also are yoked together, and evidently represent oxen as

much as those where a very fair idea of the animals has been given. A circle with spot in the centre, and also concentric circles seem to have been commonly cut by many prehistoric people. They are found on dolmens in France, and they occur in Cretan, Libyan and Etruscan alphabets. So do the circle with the cross in it, or the circle with prolonged diameter like the Greek letter Phi. Some of these figures denoted numerals. If any of our engravings had these meanings, we think they would have been more common, whereas they are extremely rare. Indeed with us hardly any of the figures of which we can give no explanation occur frequently. This fact suggests the idea that the strange and unique devices may have been the distinguishing signs of tribes, families or even of individuals. Heads of tribes, warriors, or huntsmen, may have denoted their position or their occupations by the weapon figures; the cultivators of the soil by their ploughs or yoked oxen; the majority, occupied in rearing, tending, or pasturing cattle, by symbols of their enclosures or by simple horned heads. Others again might have made the mark which denoted their family or name rather than their occupation. Nowadays on a wall one person signs his name or initials, and another draws a boat, or an animal, or whatever his mind is occupied with. Signor Palma, of whom we have spoken, is known as "Pelle", i. e. "skin", because he is a noted chamois hunter. As he can write he now signs his name but in earlier days he would perhaps have engraved the likeness of a skin upon the rocks.

Anyhow the people did not live up beyond Lago Verde or round the Meraviglie lakes. They could only have gone there in the short summer months, and not then to the higher places with their cattle. It is most likely that they went up from time to time, or from year to year at some particular season such as the summer solstice, and with the definite object of making their religious vows or offerings. We ourselves have a half belief that the imposing pyramid of Monte Bego did mean something special to them, as it does to us, who have watched its cliffs crimsoned by the first rays of sunrise, or at midday covered with racing storm clouds and in the evening black against the western sky. All who have been up to the Meraviglie have noted how Monte Bego, standing between the hot southern seaboard and the cold peaks and mountain lakes to the north, is the generator of the storms and currents. Mr Moggridge experienced thunder and lightning, with hail or

rain daily, and M. Rivière gives the mountain an equally bad reputation. All primitive people have had their sacred spots, mountains or groves or lakes, which to them were in some way connected with the forces of the unseen world, and Monte Bego may well have been such a one. And still more striking even than now would the coloured Meraviglie rock-waves, or the glacier-like surfaces of Val Fontanalba, have been to people some thousands of years ago, as they emerged out of the thick forests now destroyed. They can have changed but little, but the rocks would have been more polished, less grass-grown and furrowed, their masses of scarlet and yellow more startling and attractive, and standing out in still stronger and stranger contrast to the great angular blocks fallen from all the cliffs around them. It is not necessary to consider with M. Edmond Blanc that those prehistoric people adored a terrible and infernal divinity who resided on M. Bego, but that conspicuous summit and the weird regions at its foot may well have attracted people to some kind of religious pilgrimage. Hill tops and grottoes and wells have ever done so to Christian peoples, although the Founder of their religion seemed to disown the idea of any one place being more sacred than another. But however many prophets, age after age, may attempt to make religion a more spiritual matter, the same convictions and practices continue. The secular pilgrims of to-day visit a mountain top, a ruin, a waterfall, a garden or a palace, and leave their names enclosed in a bottle, scribbled on a wall or a stone, cut on a tree or written in a book. And religious pilgrims to a sanctuary offer a candle, a picture, a silver figure, or at least some money. We therefore consider these innumerable rock engravings to have been a sort of votive offering, reminders to unseen powers good or malignant, of the peoples' needs or fears, the expression of their desires for the well-being of their beasts, the safety of their settlements, the increase of their property and general prosperity and good luck in agriculture or in hunting. These enduring prayers in stone would have been a witness not only for a moment but for ages to come. With this explanation we think we understand the rock figures better, and we can fancy the people doing more with the hope of getting more.

Near Nice is a well-known place of pilgrimage, the Madonna di Laghetto, which has of late been more frequented as it has been more advertised. It is only one out of the multitudinous other

similar ones so common in the South. There we see quantities of votive offerings in the form of pictures, which do not represent but only suggest the form of certain accidents or dangers from which people have escaped. A man may have slipped in a dangerous place on a hill side of our steep mountains, and been rescued or reached the bottom unhurt, but his votive picture represents him falling down hundreds of feet in mid air, and landing below safely. Or the beginning of a fire, which might have assumed serious proportions, is depicted as a fearful conflagration from which it seems impossible that anyone could have escaped. Men have not greatly changed in a few thousand years. Some of the prehistoric sculptors may have made a simple mark, but others have felt that they must do more. Some may have improved upon the work of former pilgrims by adding and altering, enlarging and intercrossing, and in this way probably many of our large and strange figures have arisen, which can be separated into the original component parts. How extraordinarily different are the printed prayers now in use, some of them of the shortest and simplest kind, and some of the most flowery description. These, we take it, are the modern counterparts of the variety in the rock figures, at least in part.

But we should be very sorry to affirm that our figures had not other and fuller meanings, or that many of them were not veritable hieroglyphics. Prof. Issel in his recently published work to which we have alluded, says that the rocks may have been considered in a certain sense to be archives destined to preserve the records of memorable events such as victories, truces or treaties of peace, quarrels adjusted, alliances, marriages, etc.: or the engravings may have had to do with rights of pasture, or judicial decisions. And he adds, that such registration of important or administrative events might well have been accompanied by religious ceremonies to implore the favour of the divinity in his supposed mountain sanctuary. He says moreover that special attention should be paid to the grouping of the figures. Then some of the more covered surfaces, or elaborated designs, or those where a few of the best known forms run into one another, might be supposed to be as full of meaning as the picture-writings of the North American Indians.

We must confess that we have not paid any very great attention to the disposition of the figures. There certainly are rocks, and notably "the Tapestry Rock", which give the idea that the pattern was planned and executed by one person. There

are also the figures formed of two or more common ones, but differently arranged; and there are the often recurring groups of the three horned beasts one above the other. But we are convinced that for the most part the figures have no connection with each other, but are scattered about without any order or arrangement, and were executed at different times as well as by diverse hands. If however some of them signified such a thing as a treaty or compact, of course different persons would have engraved their signs at the same time; and it is quite possible that the different workmanship might have produced results which seem to us to be of different epochs. A deeper cutting by stronger blows or upon a better surface would last much longer, and some of the figures which appear to us newer, may really be of the same date as the others, or even more ancient.

A glance at a few of our plates may serve to illustrate these remarks. On the rock with four men holding up weapons (Plate XXIII, 1) the man on the left has a large rectangle close by him, and the next one an ox. This second man might seem to be slaying the beast, but as may be seen even from our small photograph, the beast is much more roughly cut, and it is also drawn sideways. This makes us believe that it was cut by another person, for the figures with horns are rarely represented otherwise than upright. Again, between the third and fourth men, not so clearly visible, is another horned beast of different type, which does not appear to have any connection with the human figures. Again, on the left hand of the rock figured in Plate XVI, is a large oval line within which are a "looped skin" and some horned beasts. Is this a kind of cartouche, complete in itself and having a meaning? We think not. Just outside the oval may be seen a number of figures mixed up, some touching each other, and apparently without any order. The oval naturally seems to be a frame for all that is cut within it, but no other engravings on the whole rock appear to be in any way connected; and as there was no lack of smooth surfaces prepared for fresh records, we think that people who desired to make one by picture-writing would not have interfered with and confused the records of those who had come before them.

Perhaps all the explanations suggested by ourselves or by others may be true ones. Some of the figures may have been merely symbols or representations of the sculptors' possessions or

occupations; some of them picture-writing recording events, and some signs for numerals or names of persons. But may not some of them have been neither symbols nor signs, nor artistic developments of these, but pure works of fancy and imagination? When once, for some reason or other, it became a custom to ascend to these remote heights, and whether along with religious rites or not to make offerings, records, or memorials on the rocks, might not some of the sculptors have drawn decorative figures without any particular meaning? Why should they not have done on the rocks, what others have on their pottery? These works would have been the beginning of art for arts' sake. By far the greater number of sculptors engraved the same kind of figures. The few may have been moved to do differently; and whether they were more devout or more persevering, more hopeful or more fearful, or simply more artistic, they struck out new lines and created some of those strange forms which we cannot explain, and which possibly have no explanation. Probably too, the very character of the people was partly shown by the places they chose for their engravings. Many of them, perhaps in companies, perhaps one after another, or in successive years, delighted in adding their figure to cover a rock already engraved till there was absolutely no more room. They must have rejoiced in seeing their pattern grow, and leaving as it were a completed monument. Some of those rocks can only be compared to the elaborately illuminated missals and breviaries of later times. But other people have gone away into quiet places, preferring hidden holes and corners, and cutting a single figure where there was nothing else near it, or in some position where the punching must have been exceptionally difficult. And so often have we come across a solitary figure in the most unexpected place, that we now feel our knowledge of the region, for all our visits, is far from perfect, and wish to return once more.

It may be that nothing more will ever be known about these people. Perhaps it is not worth the while of scientific students to come and see these regions in the hope of better discoveries. So we would only add that apart from these prehistoric remains, the neighbourhood is of considerable interest and well worth a summer visit. All parts of these Maritime Alps have an advantage over other mountain ranges, and that is the superiority of the climate. The rain is less frequent and there is no fear that many days of a precious summer holiday will be wasted by reason of fog and

wet. If there are no glaciers, or at least only little ones interesting chiefly to geologists, under some of the higher mountains, there are abundant rock peaks to climb, difficult as well as easy, and new passes to discover, and little known places to explore. There are few panoramas more varied and beautiful than those from such summits as Monte Bego, the Righi, as it is called, of the Maritime Alps. Close at hand are the high peaks of this chain and beyond them the plain of Piedmont and the long line of Alps sweeping past the majestic Monte Viso to the far off group of Monte Rosa and the Matterhorn. On the south, standing high above the misty horizon across the sea, are the mountains of Corsica. East and west the coast stretches away for well nigh a hundred miles on either side, westward past Antibes and the Esterel to the Maure mountains near Toulon, and eastward to the Apennines near Genoa.

To the botanist these mountains are of great interest. Flowers peculiar to the Maritime Alps abound, such as *Silene Campanula* P., *Potentilla Valderia* L., *Asperula hexaphylla* All., *Senecio Balbisianus* All. and *Micromeria Piperella* Benth. The lovely little *Viola nummularifolia* All. covers the fine scree of the upper regions, and the extremely rare *Phyteuma Balbisii* D. C. f. grows on the limestone cliffs in the valleys; while the glory of these mountains, *Saxifraga florulenta* Moret. is not far off: we have found it in the Valmasca valley, the furthest habitat to the east yet known. It is not our business to speak at length here of other places worth visiting near at hand: of the quaint old village of Briga, and the splendid frescoes of Giovanni Canavese in the church of the Madonna: of the Certosa di Pesio, a pleasant summer retreat; of the Baths of Valdieri and Vinadio, or the Madonna di Finestra. We have only wished to speak of those desolate rock regions and of the prehistoric engravings. Beautiful places they are, with mountain air to temper a southern sun, and deeply interesting with all these countless memorials of the past. Day by day to us the fascination of those rocks grows, as one treads with reverence upon the records of an unknown people till, thinking and wondering about the prehistoric sculptors, one almost expects to turn round and see one of them close by cutting out his plough and oxen, his weapon, his rectangle, or some other mysterious design, and to hear from his own lips who he is, and what is the meaning of his work.



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EXPLANATION OF THE PLATES

Plates I-XI. Lithographs from rubbings and squeezes, reduced by means of a pantograph. All $\frac{1}{8}$ natural size, except those marked otherwise.

PLATE	I	Laghi delle Meraviglie, Weapons and implements.
»	II	» » » Horned beasts. Ploughs, Geometrical and miscellaneous designs.
»	III	Val Fontanalba, Various types of horned beasts. Simple horns. Large figures of beasts. Beasts with tails; with ears; with branching horns. Yoked oxen.
»	IV	» » Beasts with exaggerated horns; with legs; with three or four horns.
»	V	» » Simple and ornamented skins. Geometrical figures. Various designs of rectangles with enclosures.
»	VI	» » Rectangles with enclosures. Weapons and implements ($\frac{1}{6}$ natural size).
»	VII *	» » Figures of men, Men with ploughs, and two, three or four oxen. Men with weapons, implements or ensigns. Yoked oxen with harrows.
»	VIII	» » Portion of "the 300 Rock". Men with plough and oxen. Various large horned beasts.
»	IX	» » Miscellaneous and strange figures. Spiral, etc.
»	X	» » Group of three oxen (natural size). Four oxen yoked. Unfinished designs. Miscellaneous and composite figures. Three figures in Val Valauretta (<i>d, e, f</i>).
»	XI	» » Portion of a rock with twelve figures of oxen.

* The lower of the two figures marked *c* in Plate VII was inadvertently reduced from a bad copy of the original rubbing and is incorrect. The true forms of the oxen may be seen in Plate XIX.

Plates XII-XXIII. Reproductions of photographs, the large ones taken by Signor E. Benigni,
the small ones by C. Bicknell and L. Pollini.

- PLATE XII 1. Man ploughing in Val Casterino.
2. Lower Lago delle Meraviglie, looking south.
- » XIII 1. Engraved rock near the lower Lago delle Meraviglie, south side.
2. » » » » » north »
- » XIV Portion of rock in the "Via Sacra". Man with plough etc.
- » XV 1. Monte Bego and the central grey mass from the two small lakes
above Lago Verde.
2. Engraved rock near Lago Verde.
- » XVI Portion of upright rock on "Skin Hill".
- » XVII Smooth crimson rock under Monte Santa Maria.
- » XVIII 1. The central grey mass and Monte Santa Maria from Lago Verde.
2. Monte Bego from the great smooth surface in the central mass.
- » XIX Figures of three men with plough and oxen on the great smooth surface.
- » XX 1. The hillside beyond Lago Verde with Monte Bego and part of the
M. Bego region.
2. Rock with figures of weapons etc. on the hillside beyond Lago Verde.
- » XXI 1. 2. Portions of "the 300 Rock". On N° 1 are two figures of a
man with plough and oxen.
- » XXII 1. Portion of "the 300 Rock".
2. The "Napoleon Rock". Man with plough and oxen.
- » XXIII 1. Rock with four figures of men, at the head of the small gully.
2. Engraved rocks in Val Valauretta.



PLATES

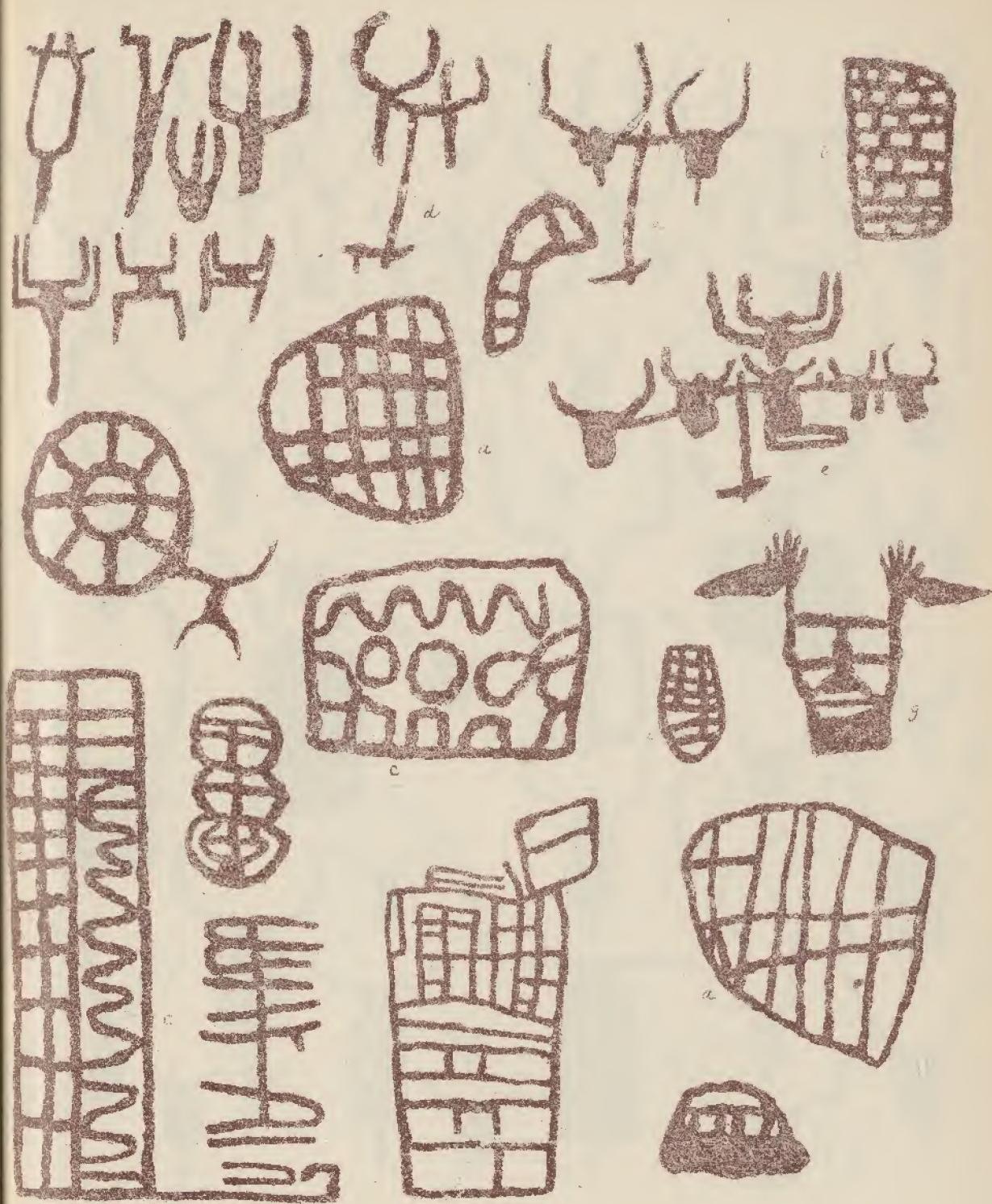


PLATE I.



Laghi delle Meraviglie — Weapons, implements, etc.

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Laghi delle Meraviglie — Horned beasts, ploughs, geometrical and miscellaneous designs.

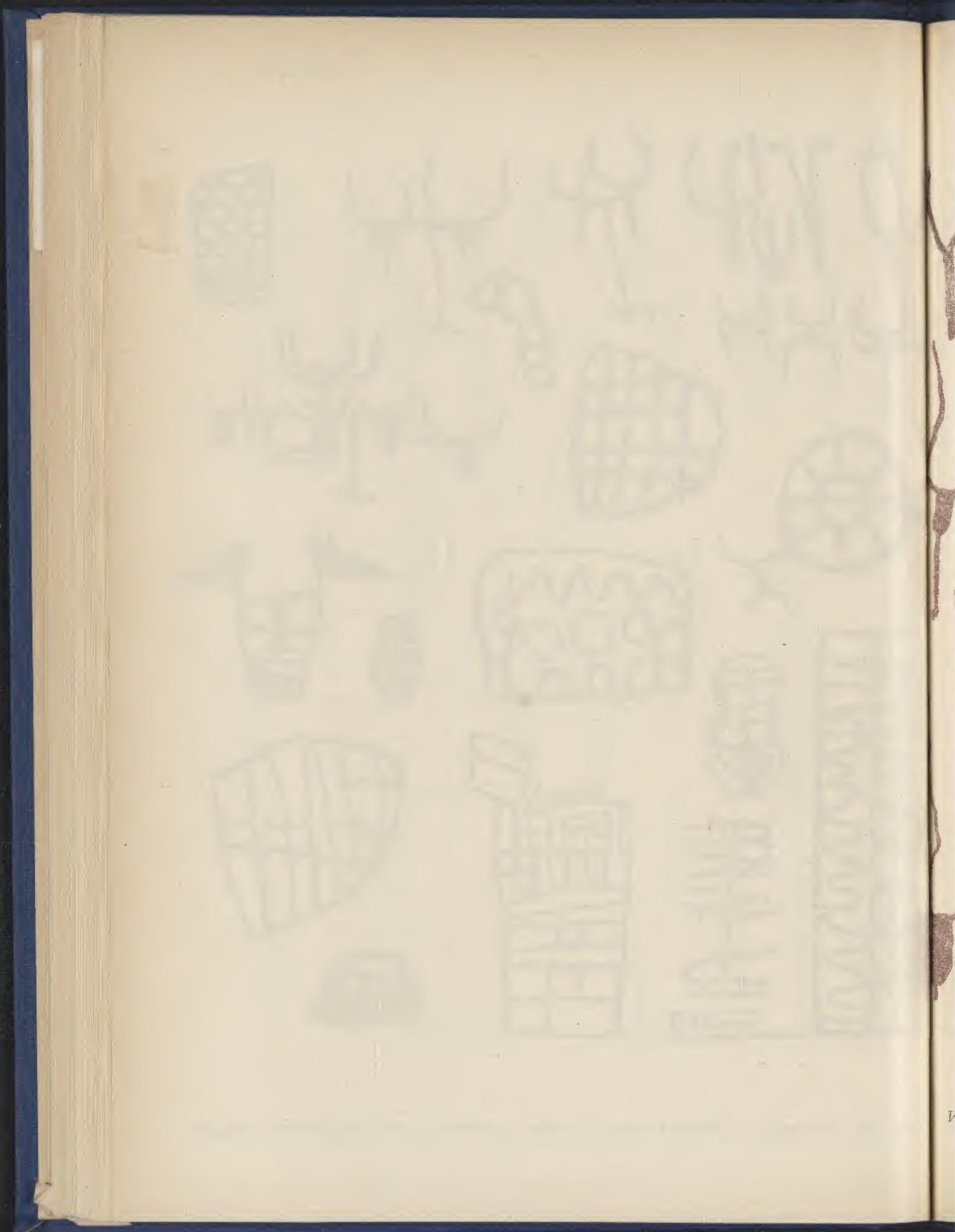
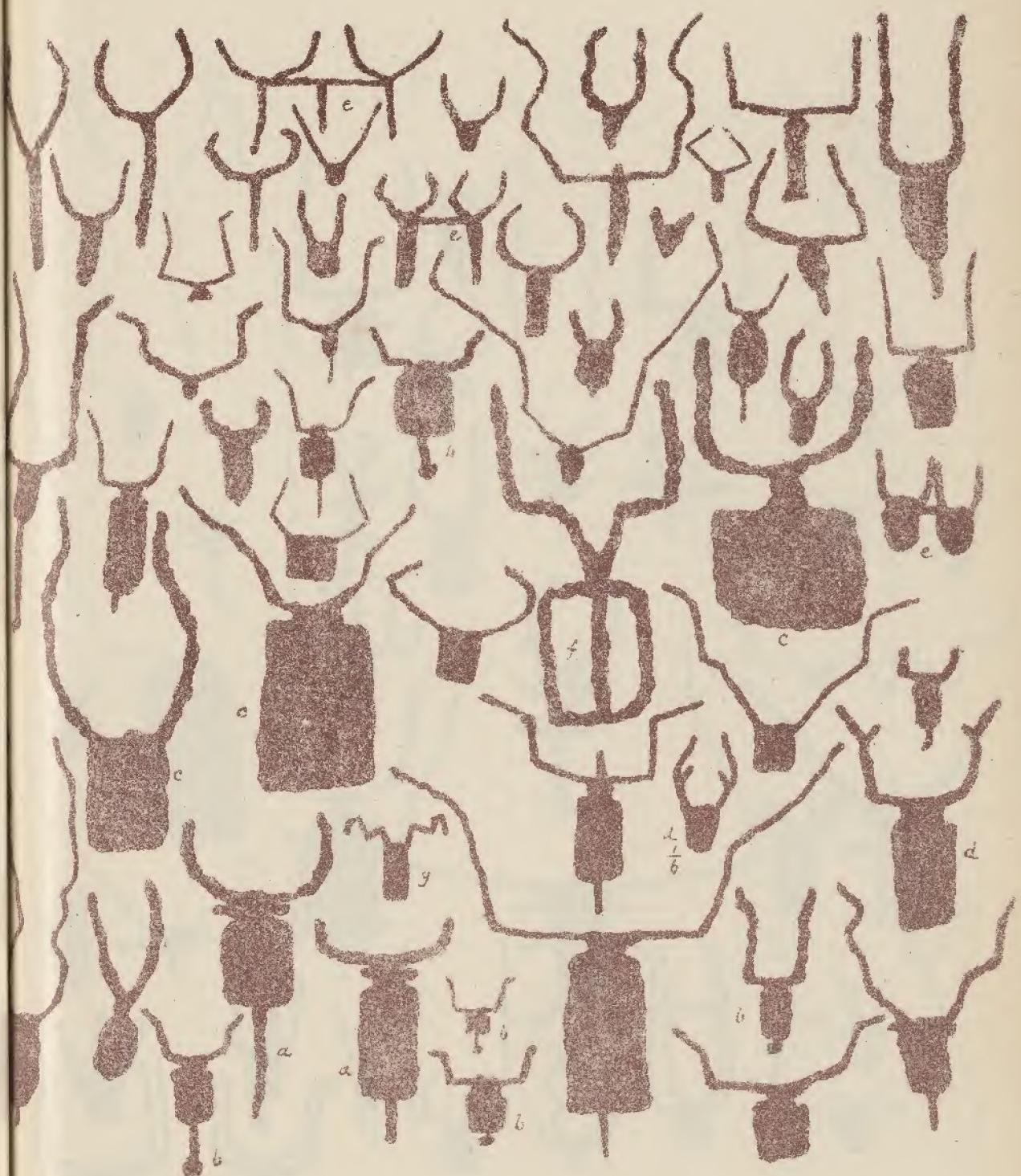
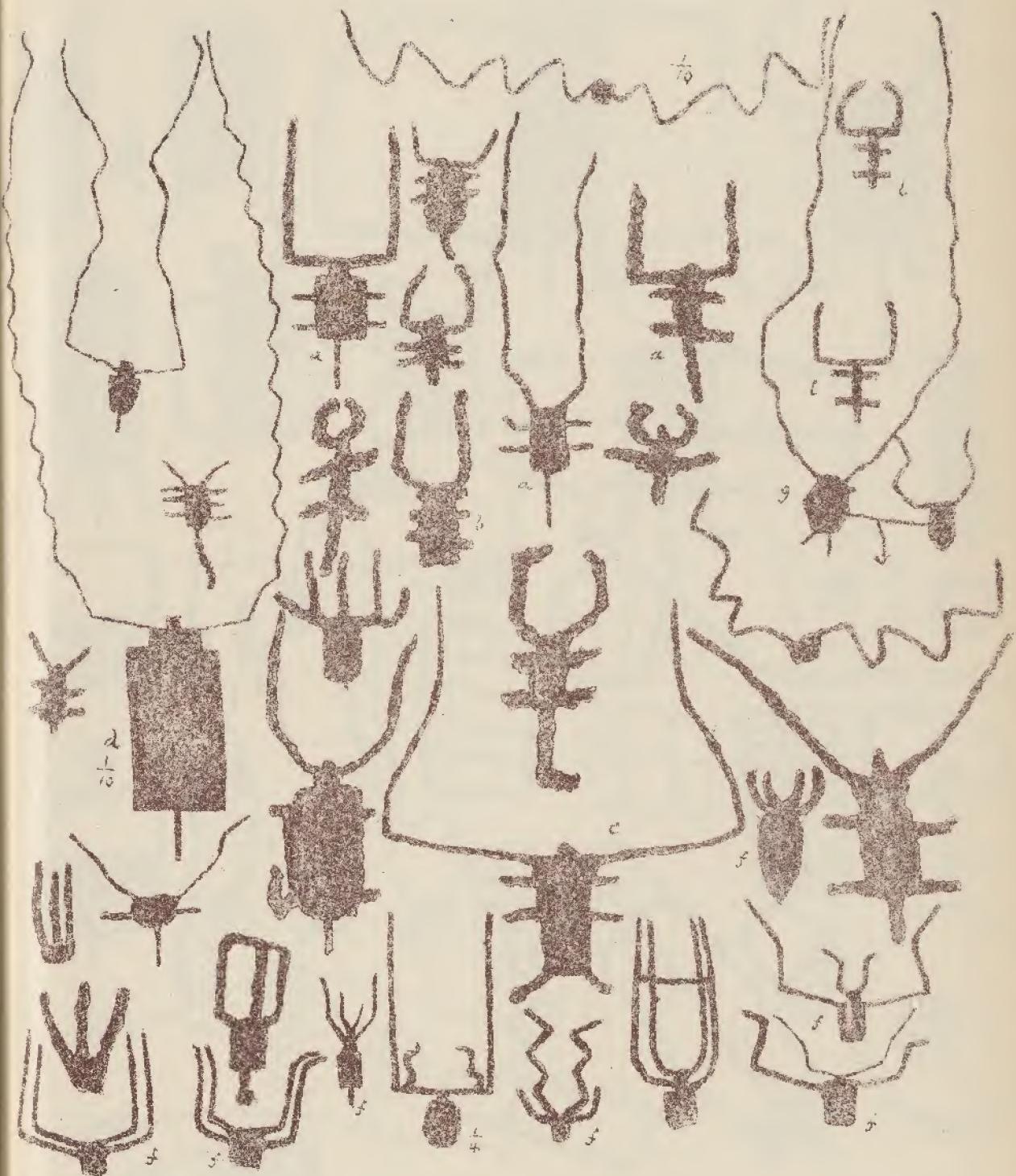


PLATE III.



Val Fontanalba — Various types of horned beasts. Simple horns. Large figures of beasts.
Beasts with tails, with ears with braching horns. Yoked oxen.



Val Fontanalba — Beasts with exaggerated horns, with horizontal horns,
with three or four horns.

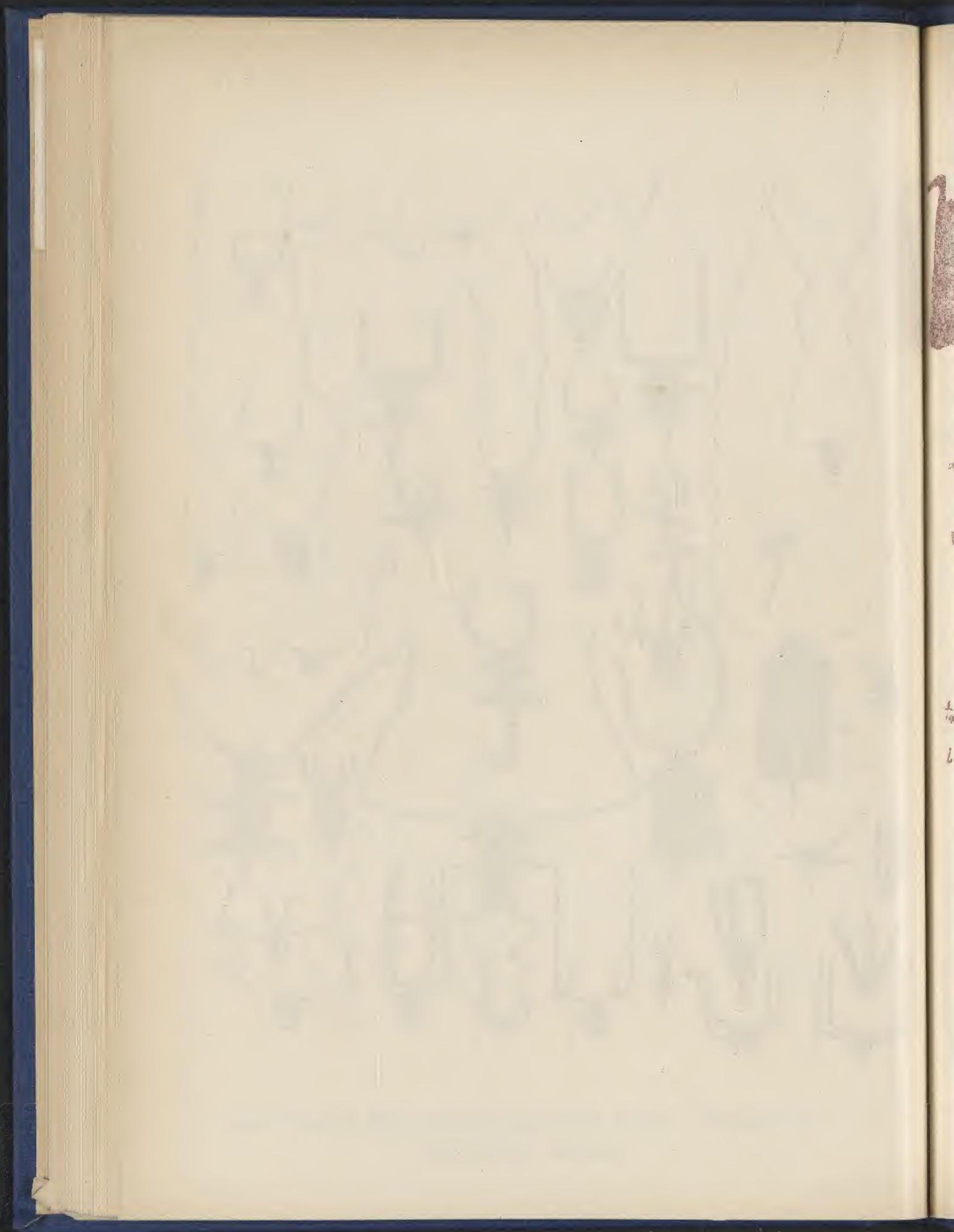
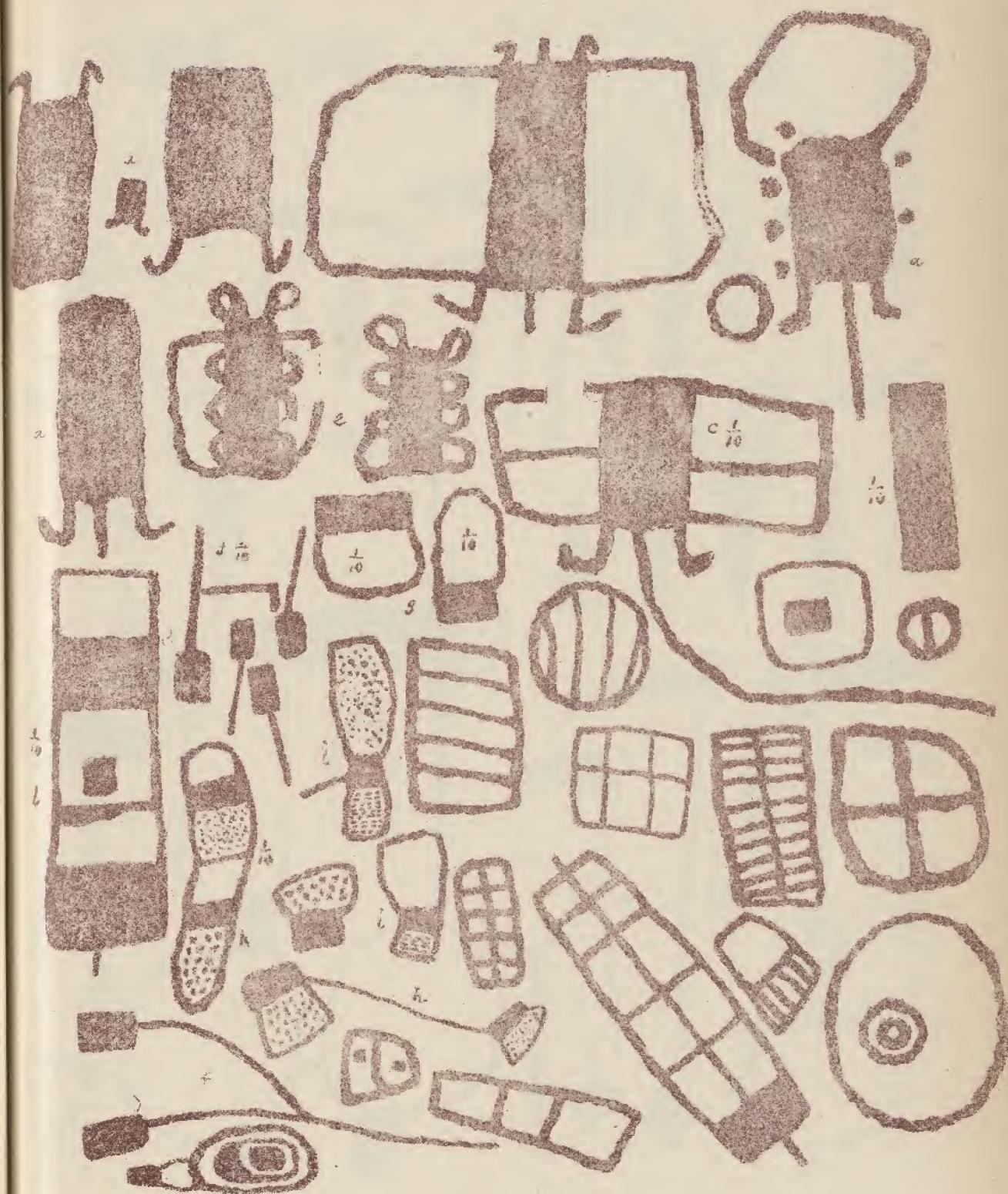


PLATE V.



Val Fontanalba — Figures of skins. Geometrical figures. Various forms of rectangles with enclosures, etc.

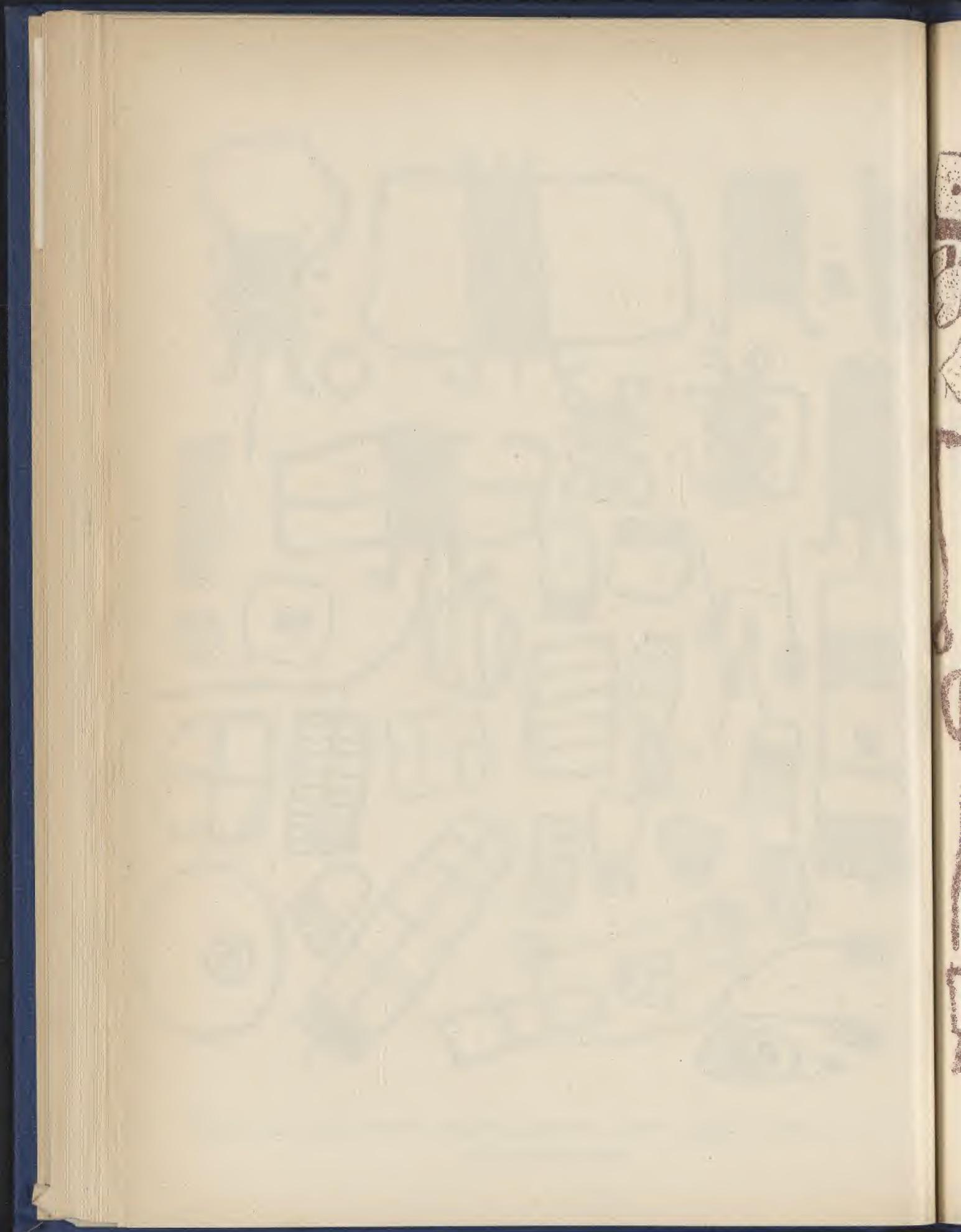
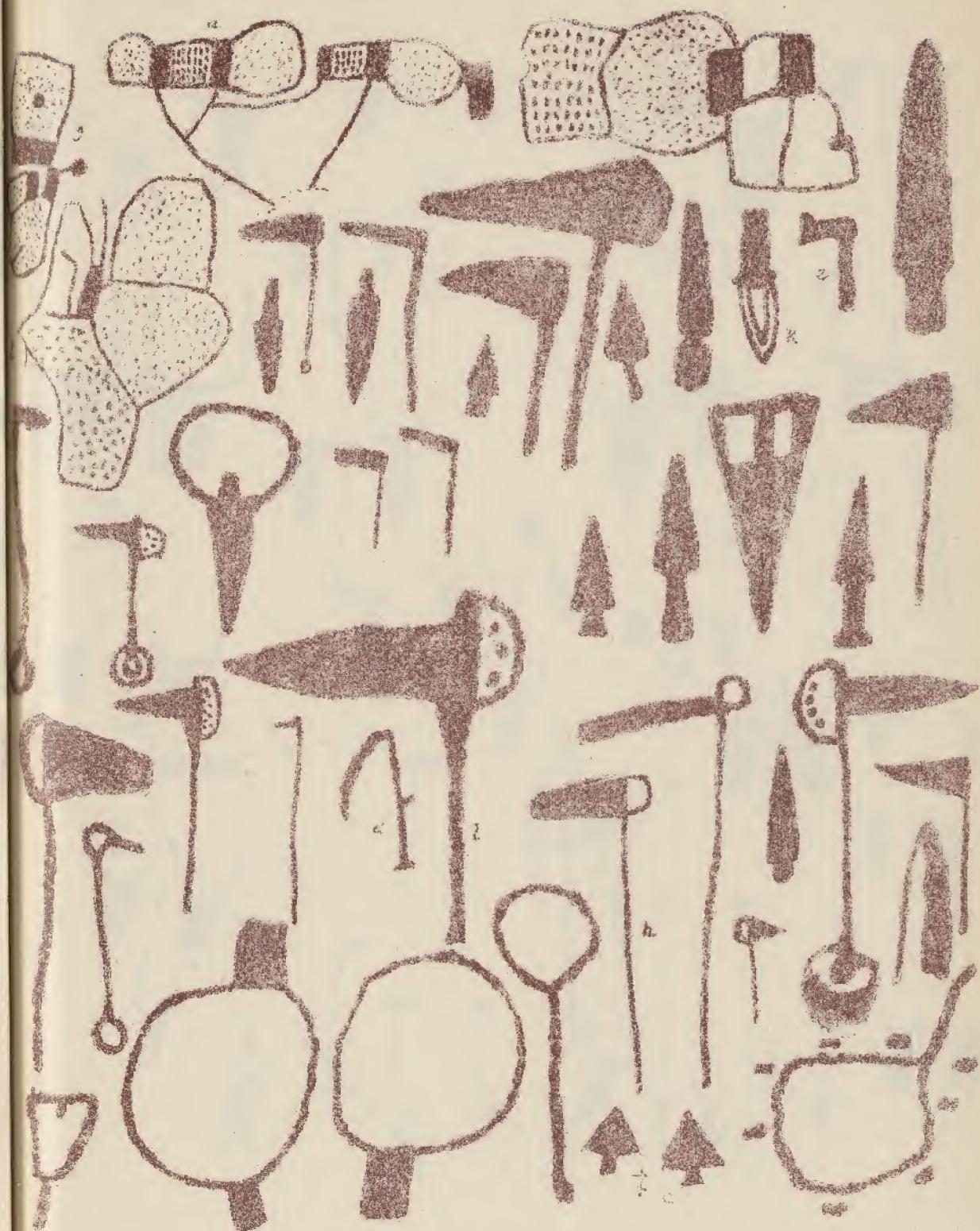


PLATE VI.



Val Fontanalba — Rectangles with enclosures.

Weapons and implements, etc. ($\frac{1}{6}$ natural size).

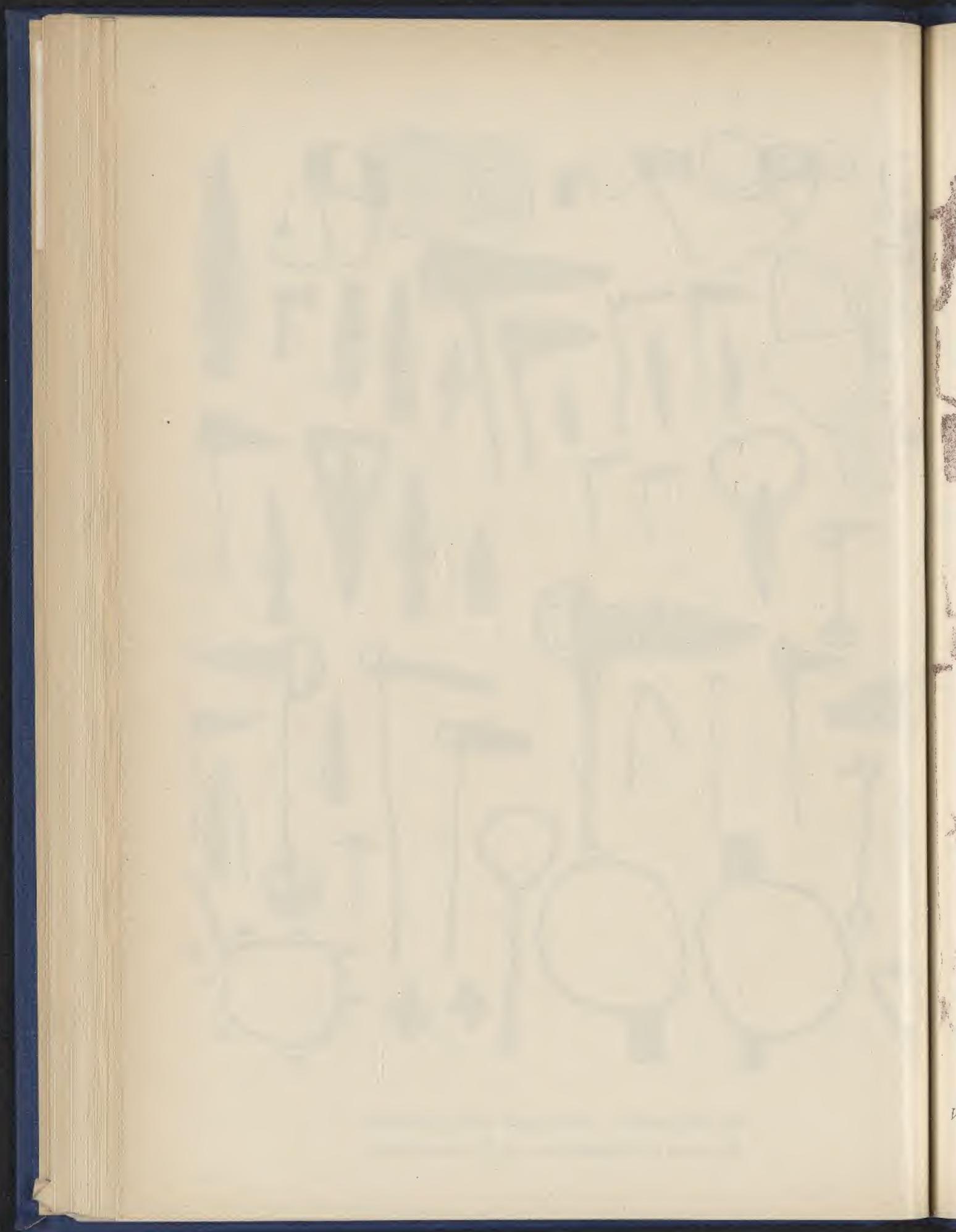
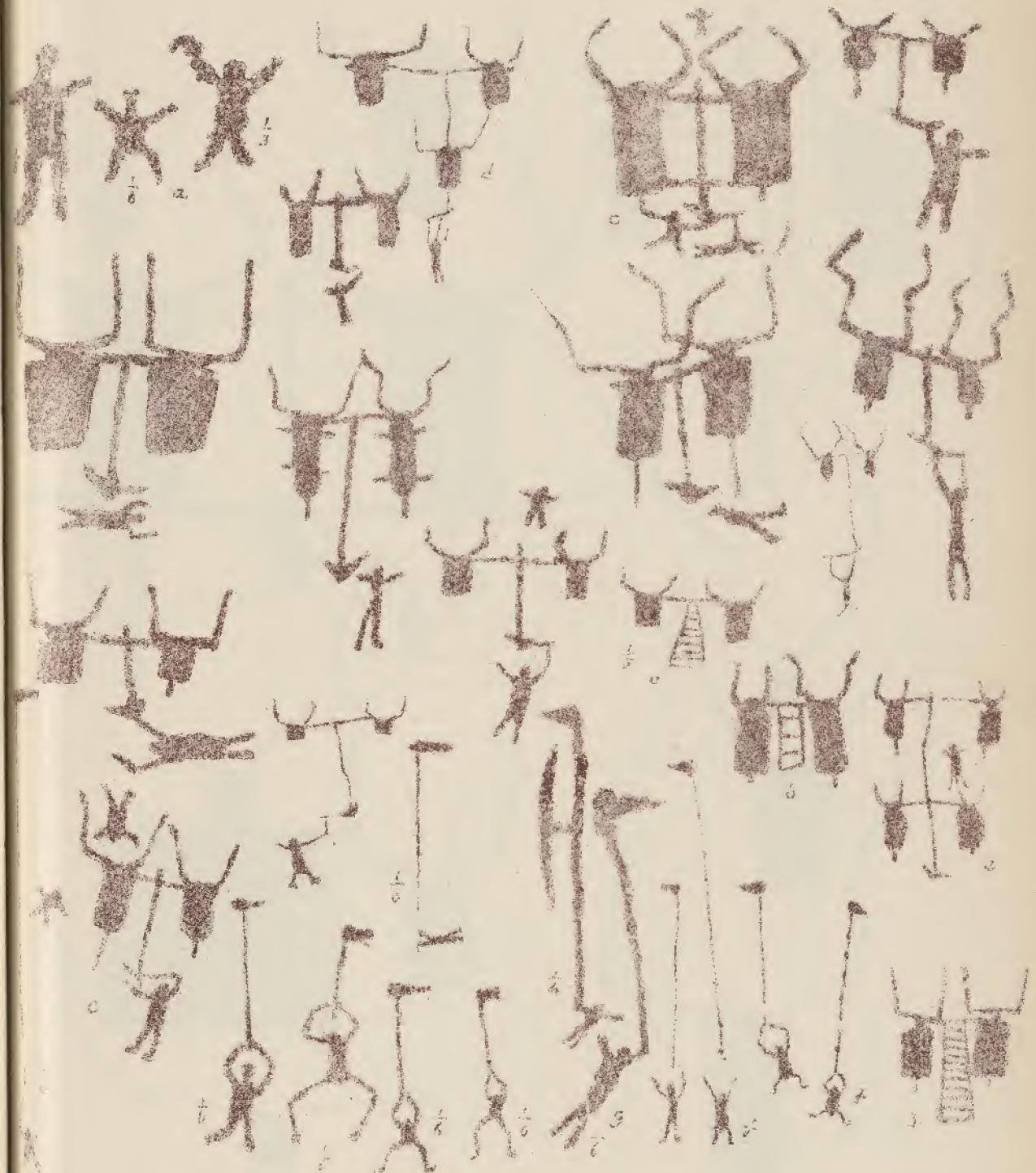


PLATE VII.



Val Fontanalba — Figures of men. Men with ploughs. Men with weapons or implements.

Oxen with harrows.

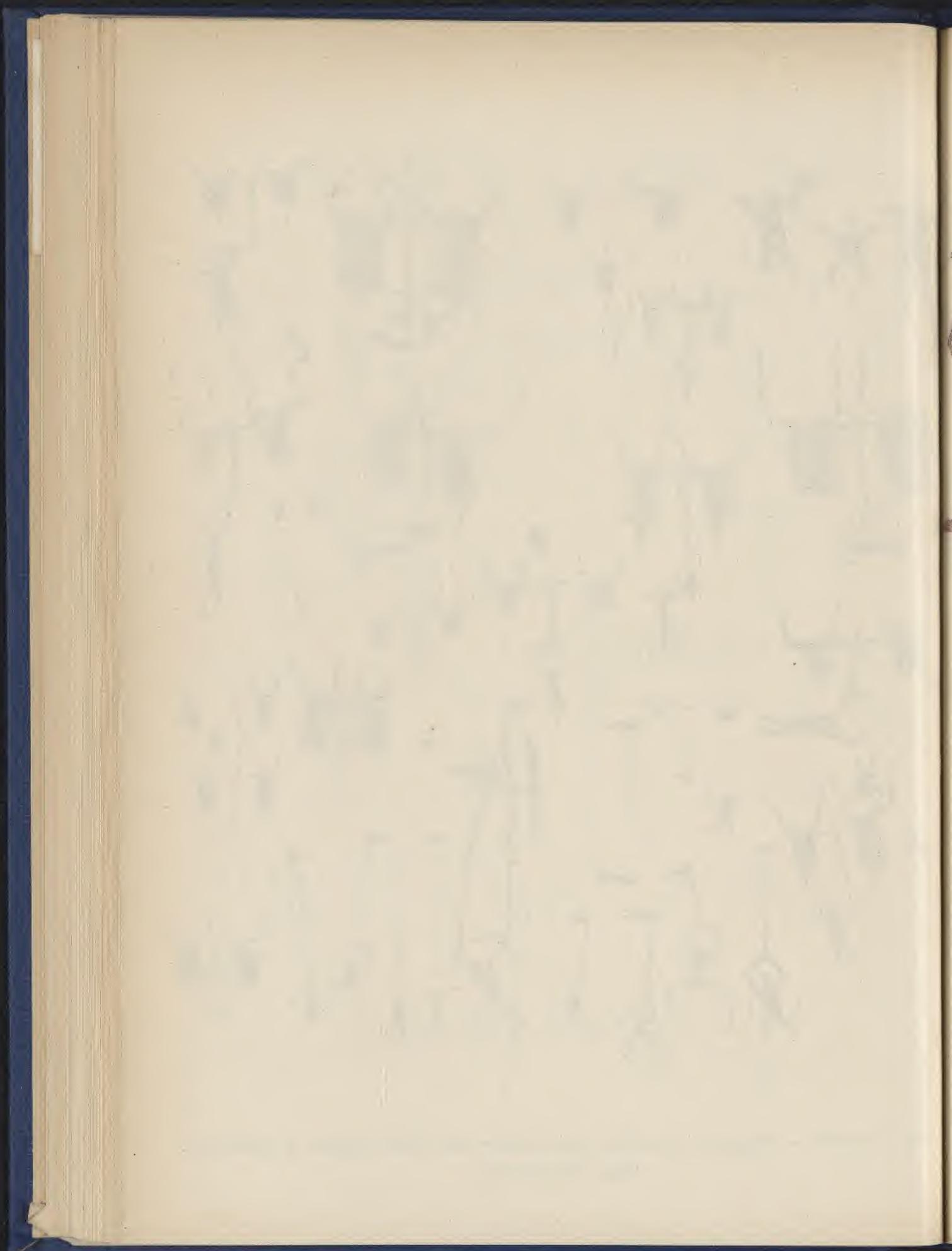
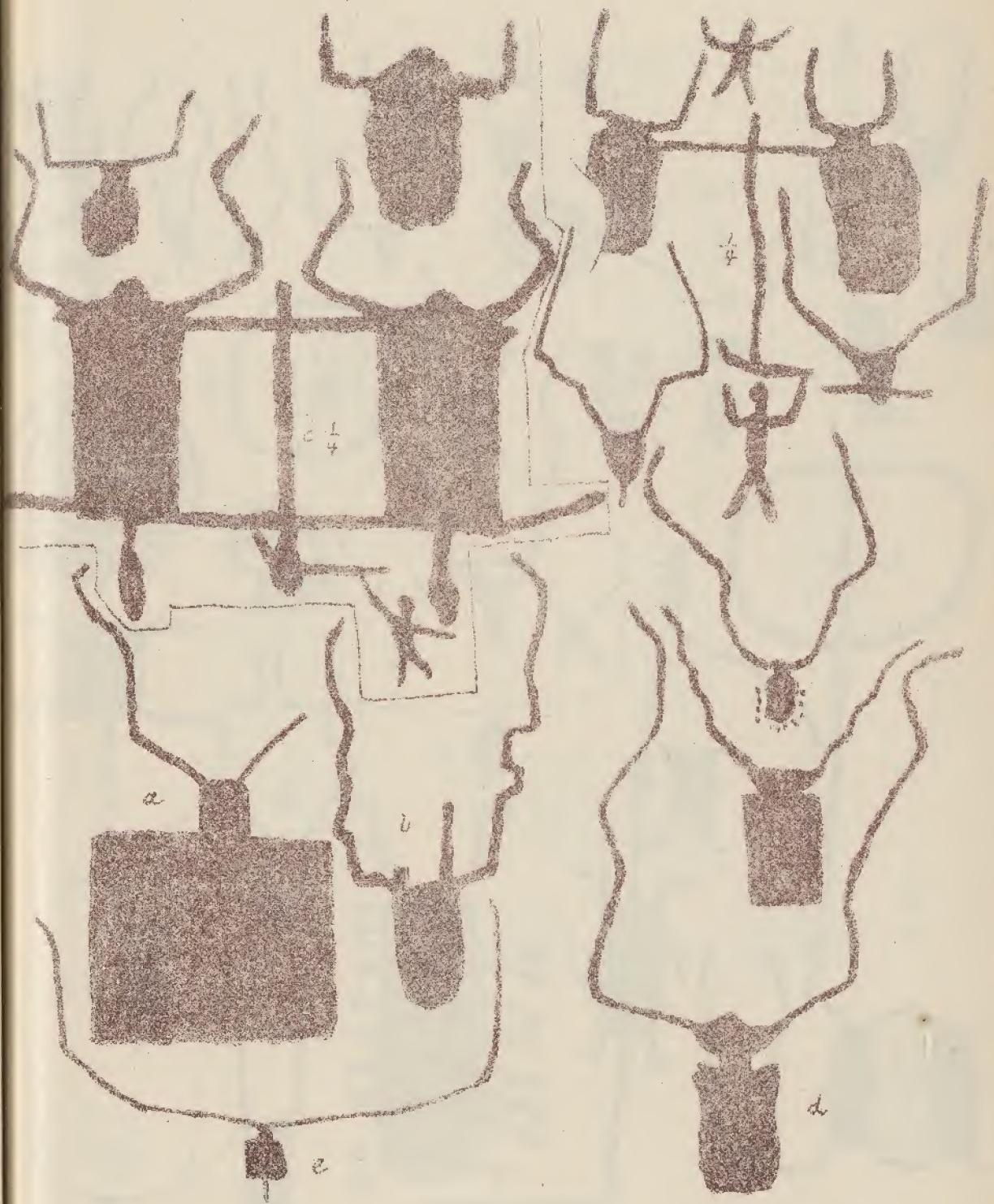


PLATE VIII.



Val Fontanalba — Portion of "the 300 Rock", figures of men with ploughs and oxen.

Various horned beasts.

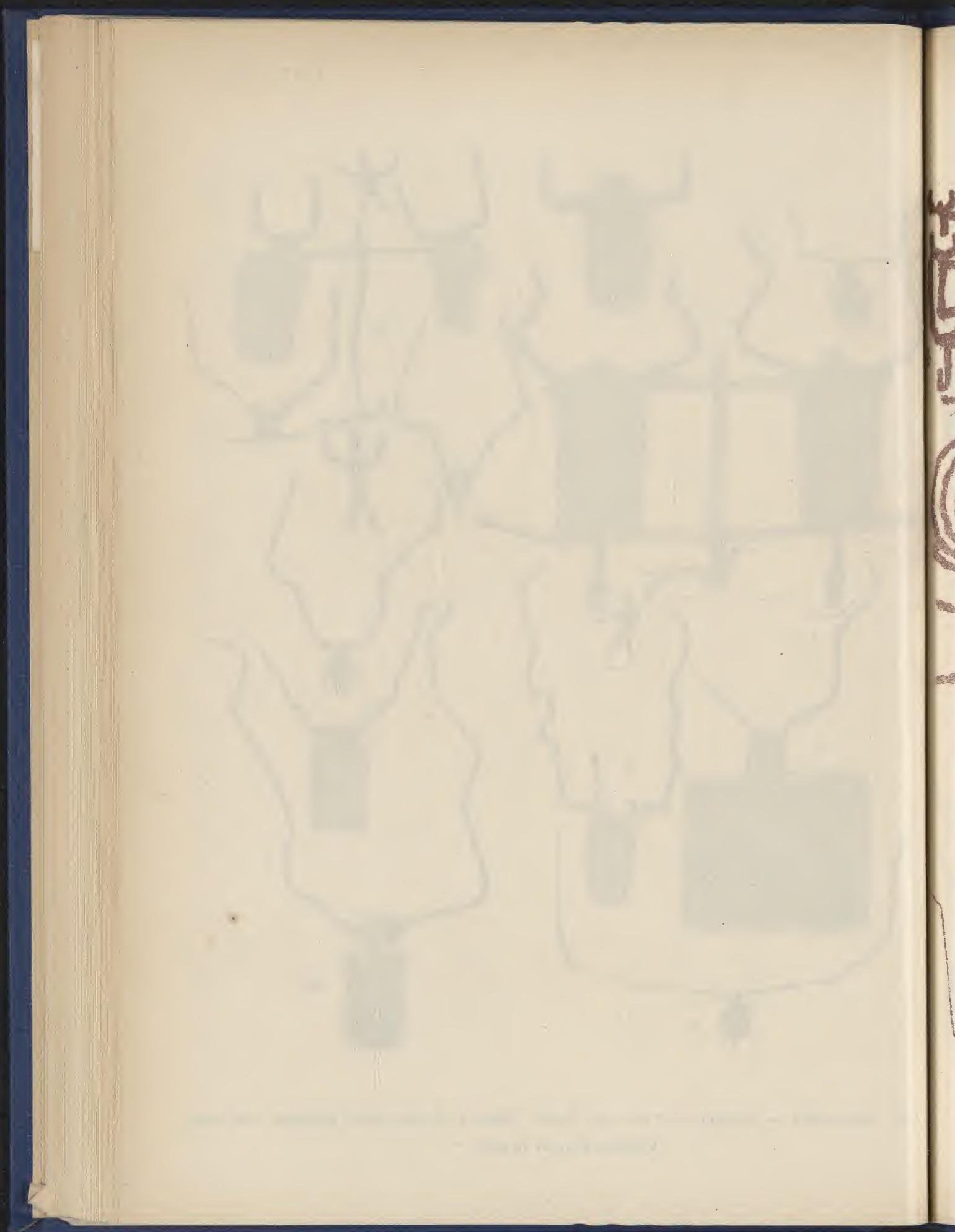
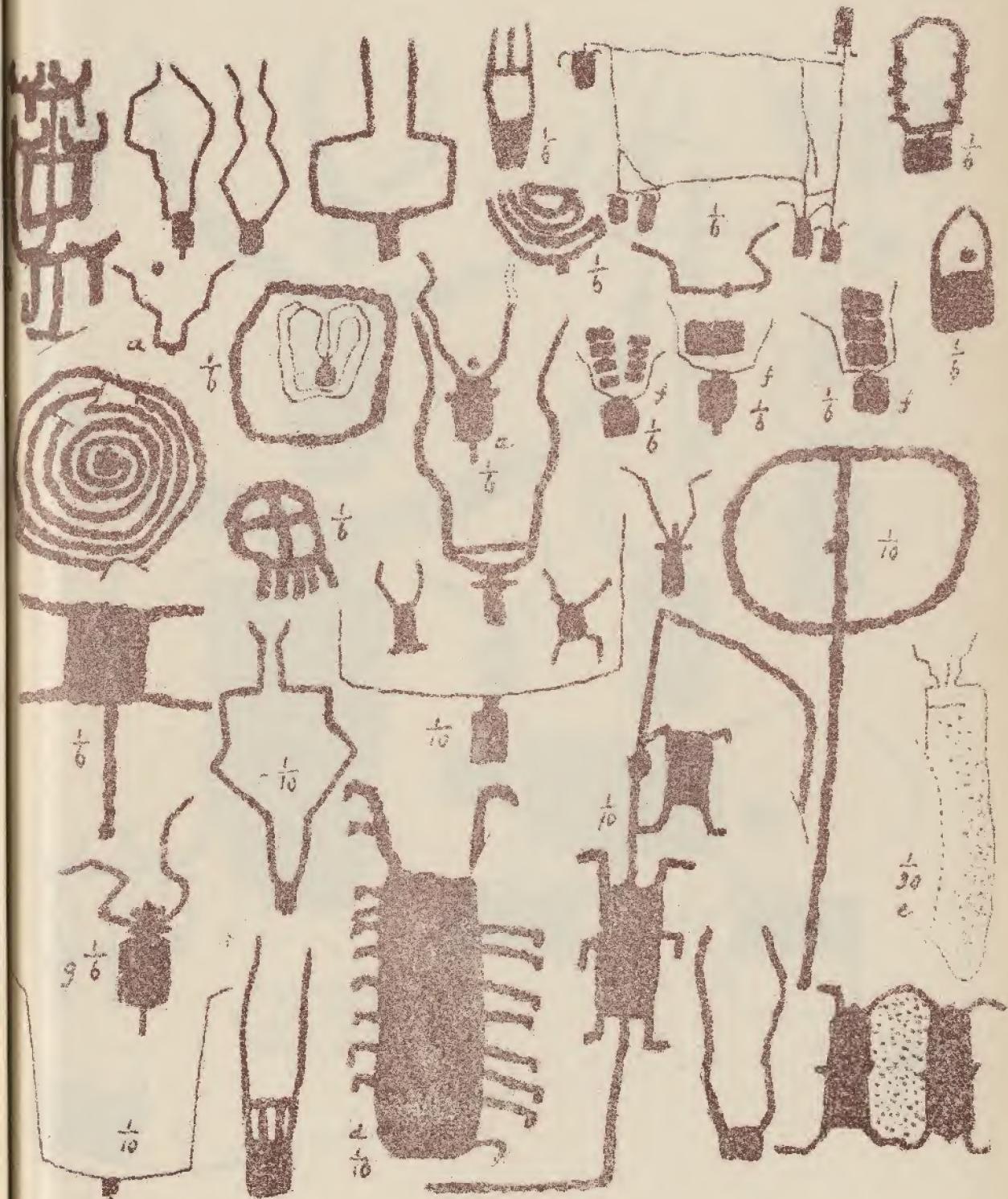


PLATE IX.



Val Fontanalba — Miscellaneous and strange figures.

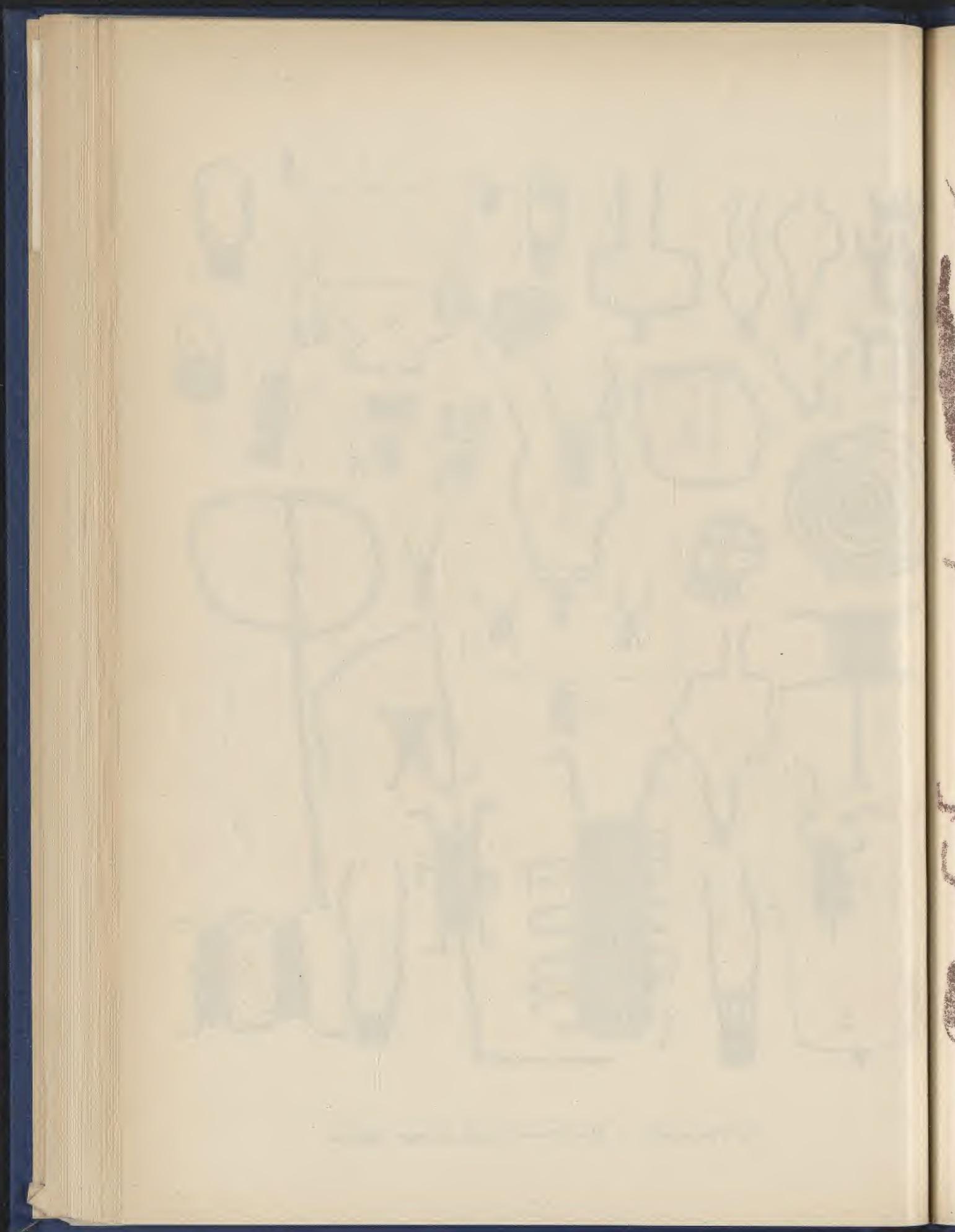
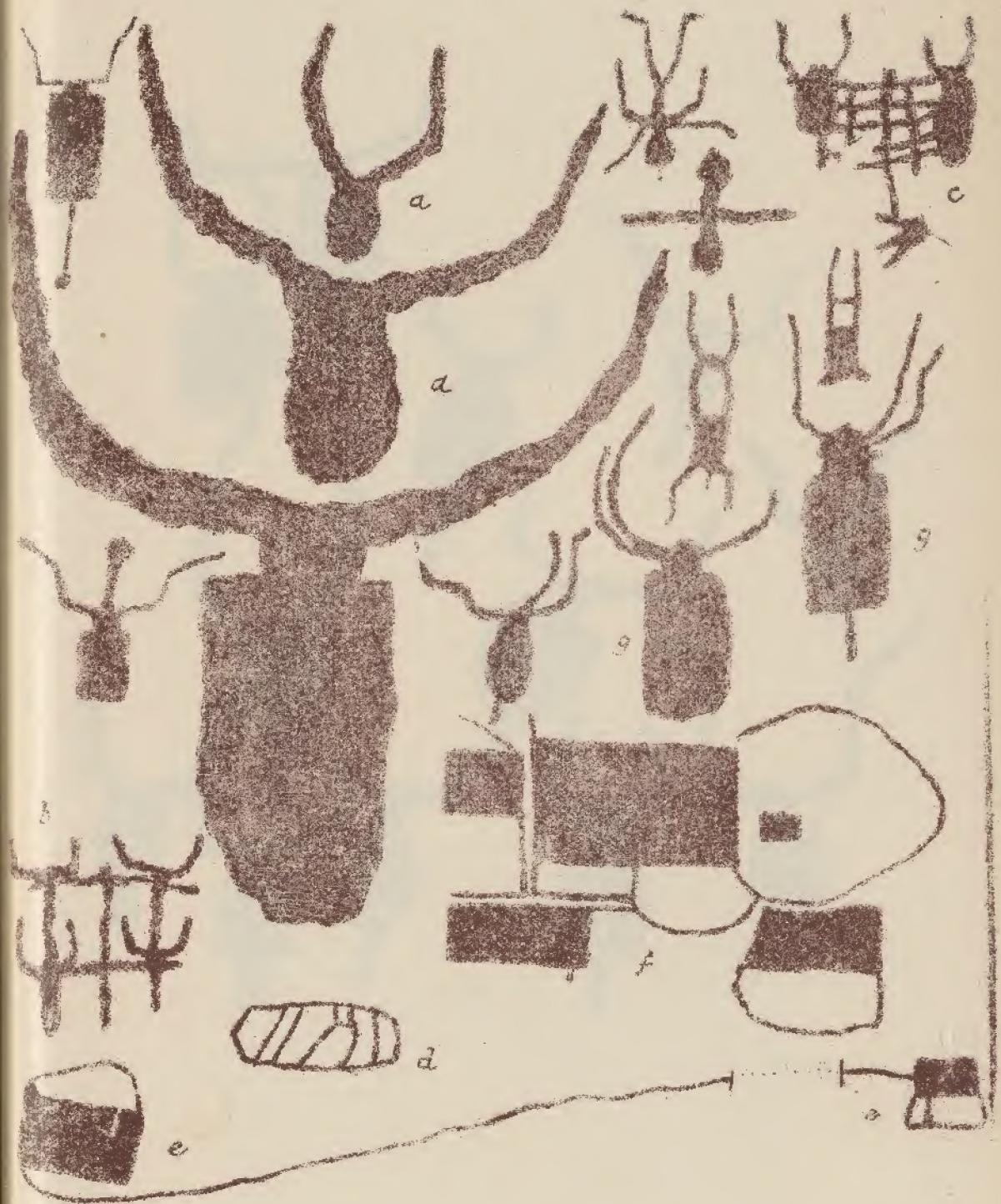


PLATE X.



Val Fontanalba — Group of three oxen (natural size). Unfinished designs.

Miscellaneous figures. Geometrical figures in Val Valauretta.

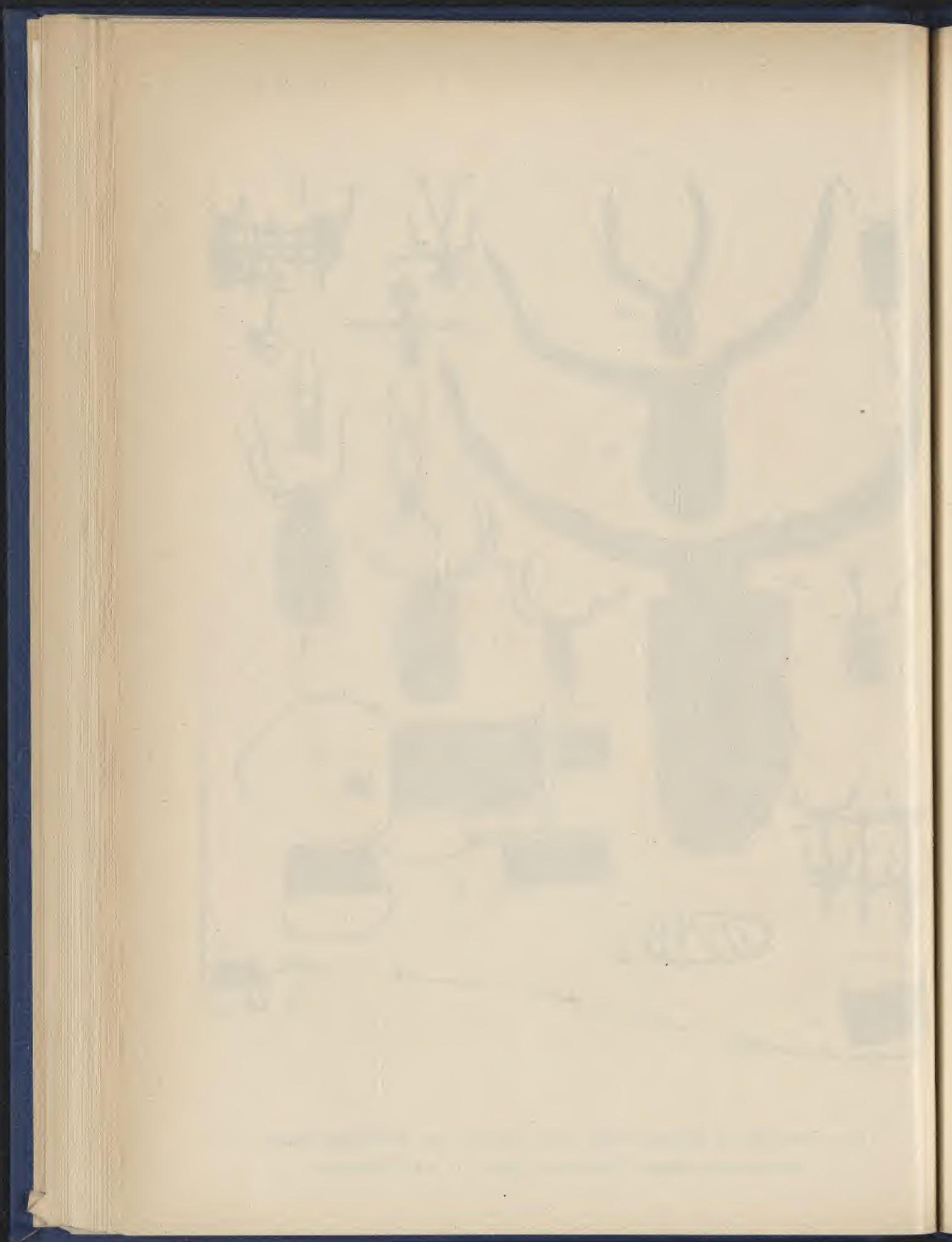
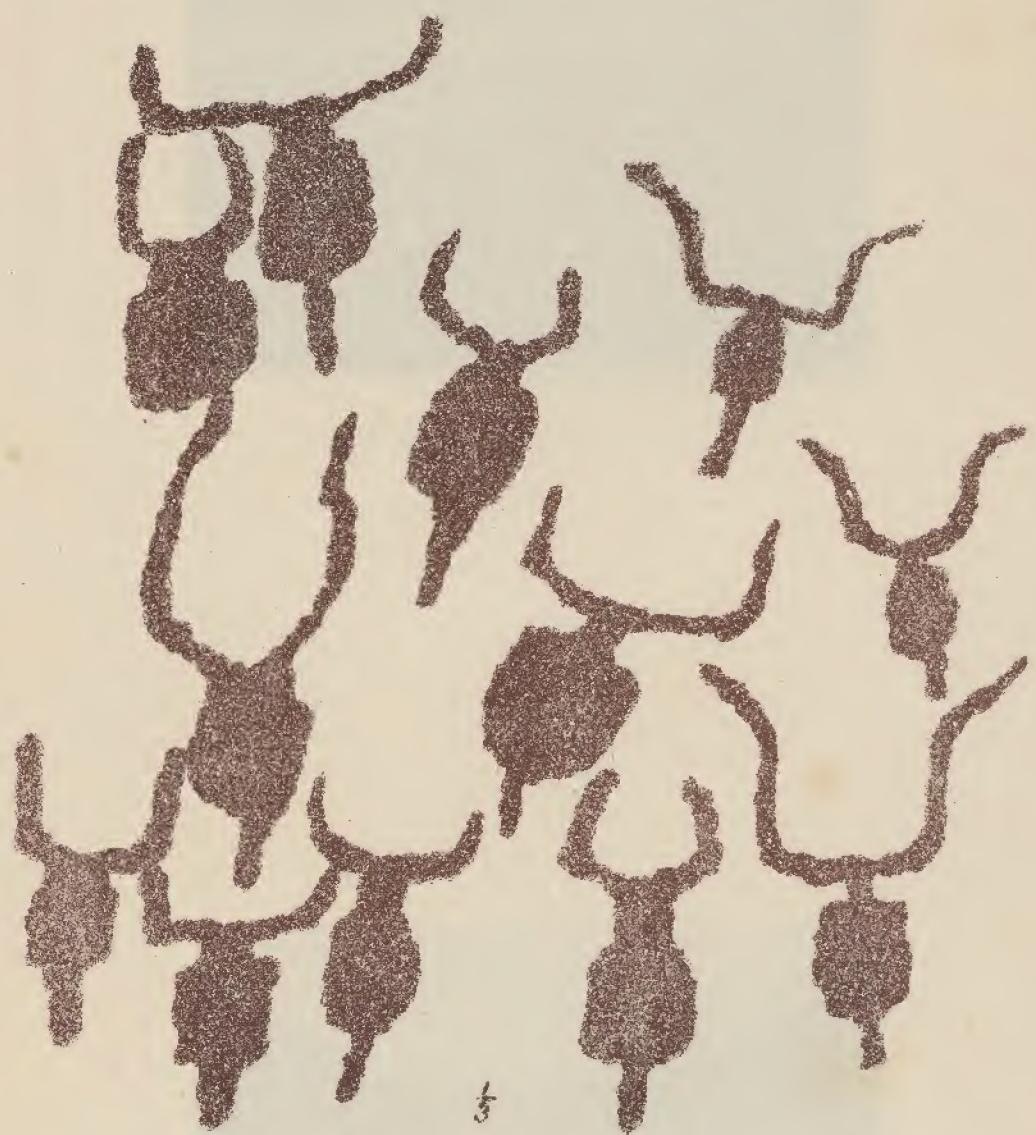


PLATE XI.

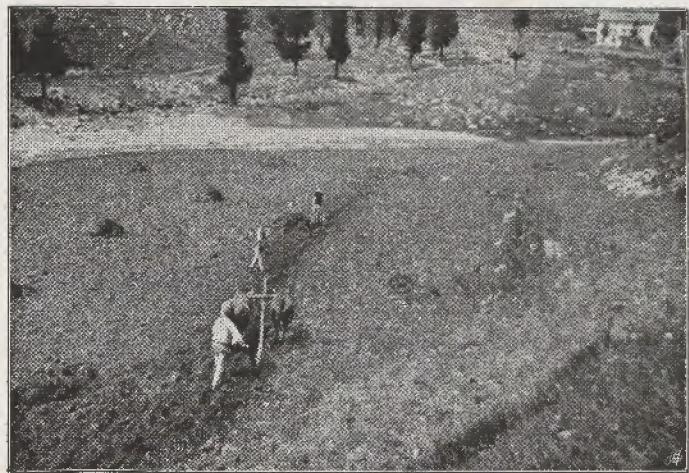


Val Fontanalba — Part of a rock with group of twelve oxen.

17. 1. 7

more violent in your illness than at present - you have had

PLATE XII.



1. Man ploughing in Val Casterino.



2. The lower Lago delle Meraviglie.

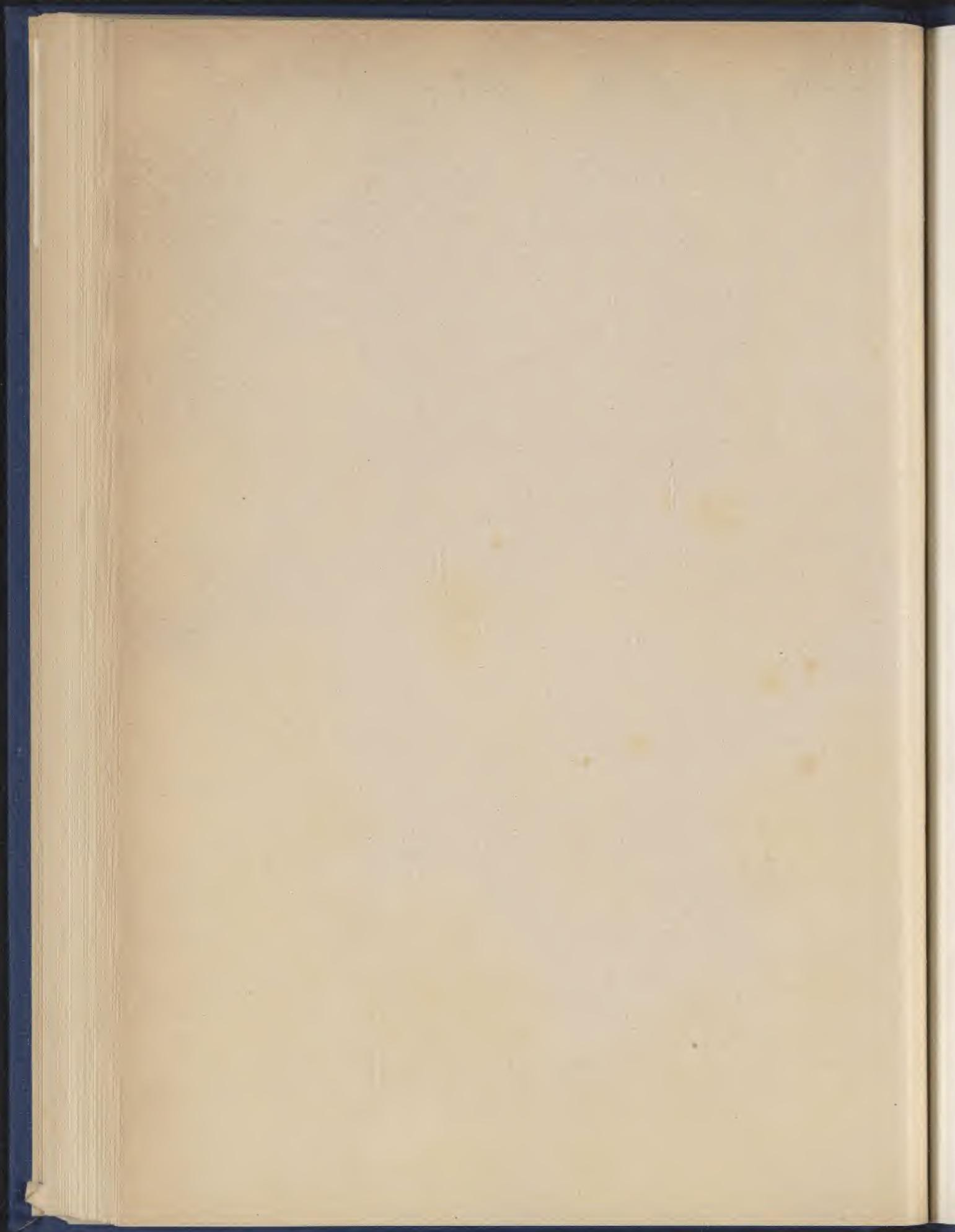


PLATE XIII.



1. Engraved rock near the lower Lago delle Meraviglie, south side.



2. The same, north side,

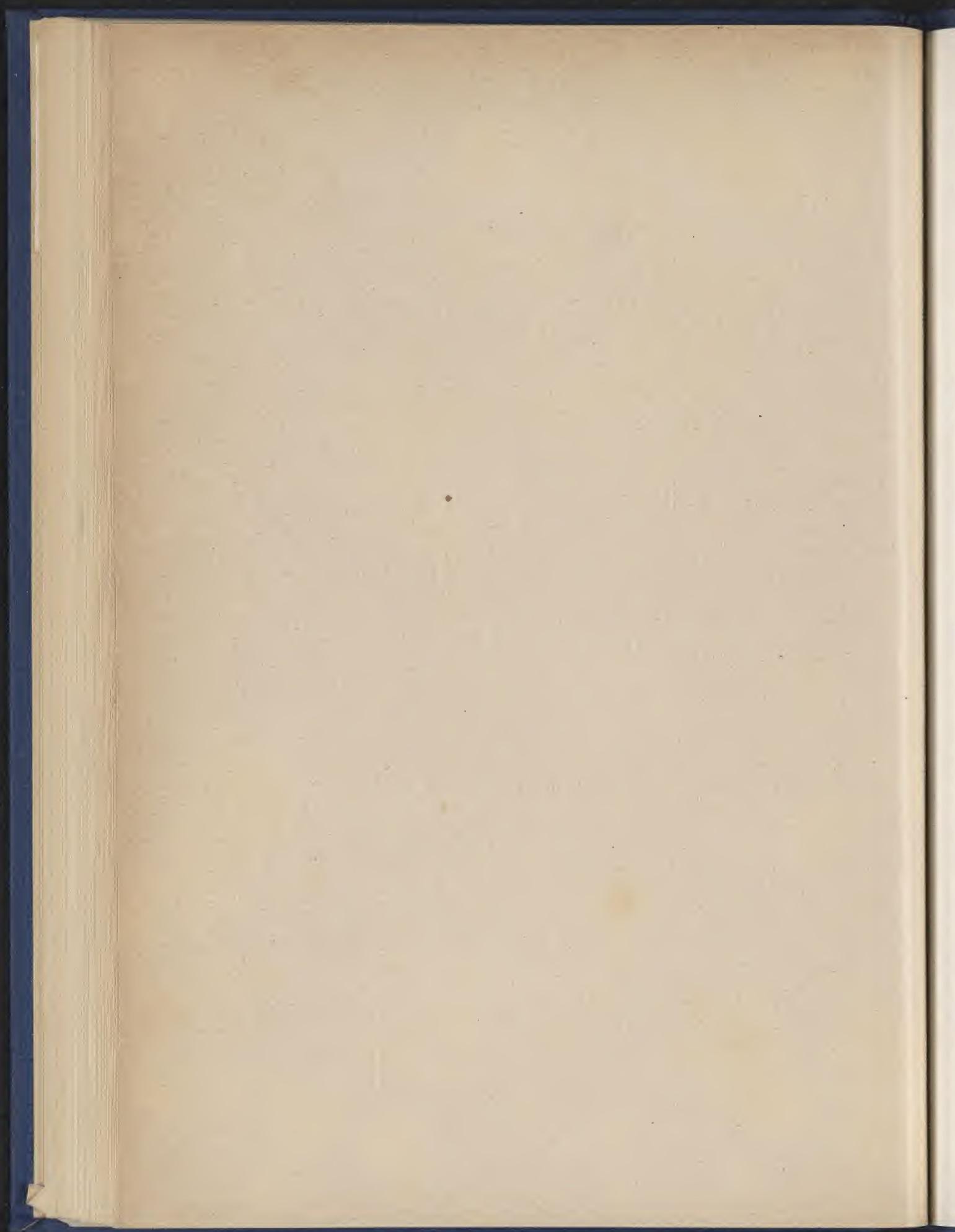


PLATE XIV.



Portion of rock in the "Via Sacra", man with plough, etc.

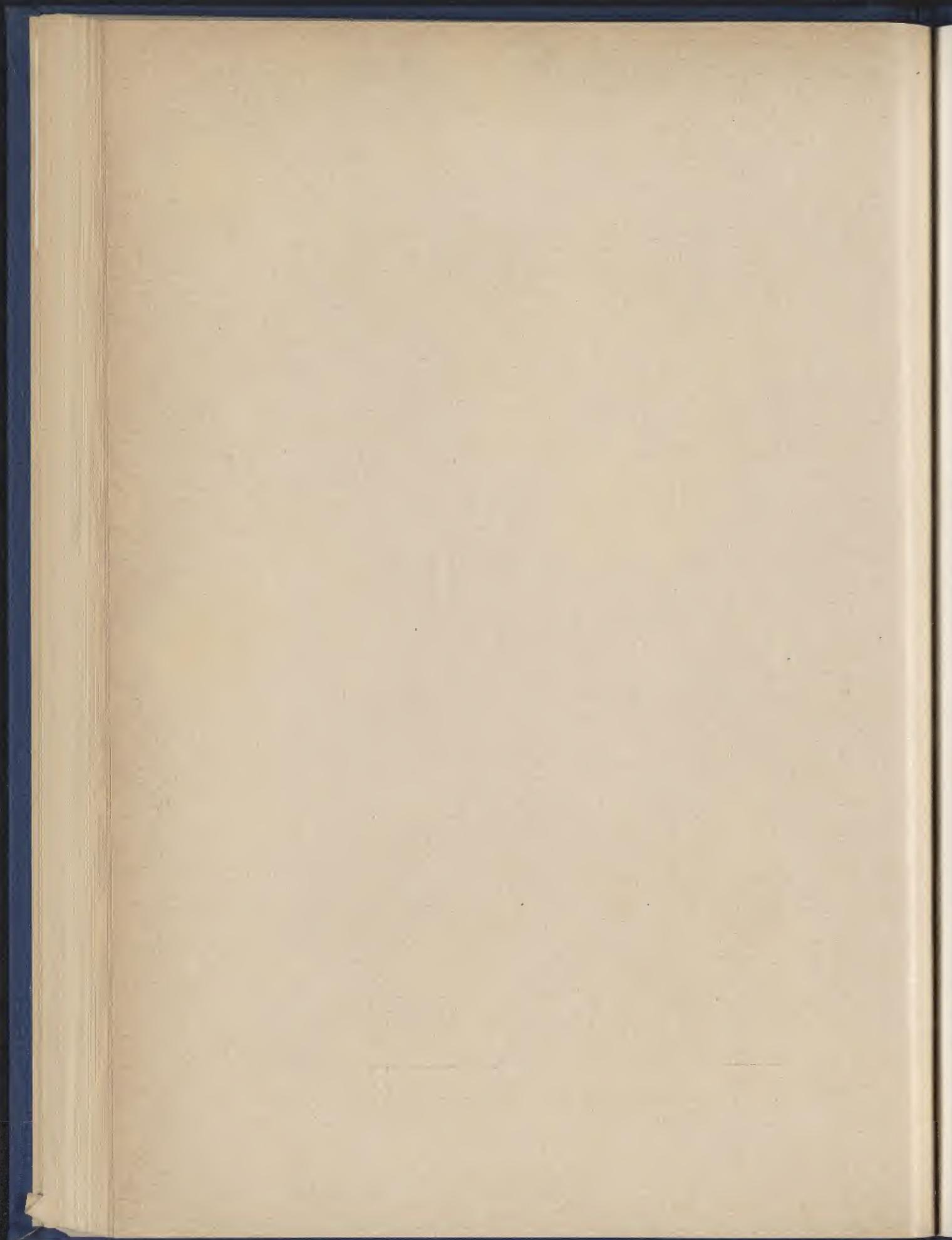


PLATE XV.



1. Monte Bego from the small lakes above Lago Verde.



2. Engraved rock near Lago Verde.

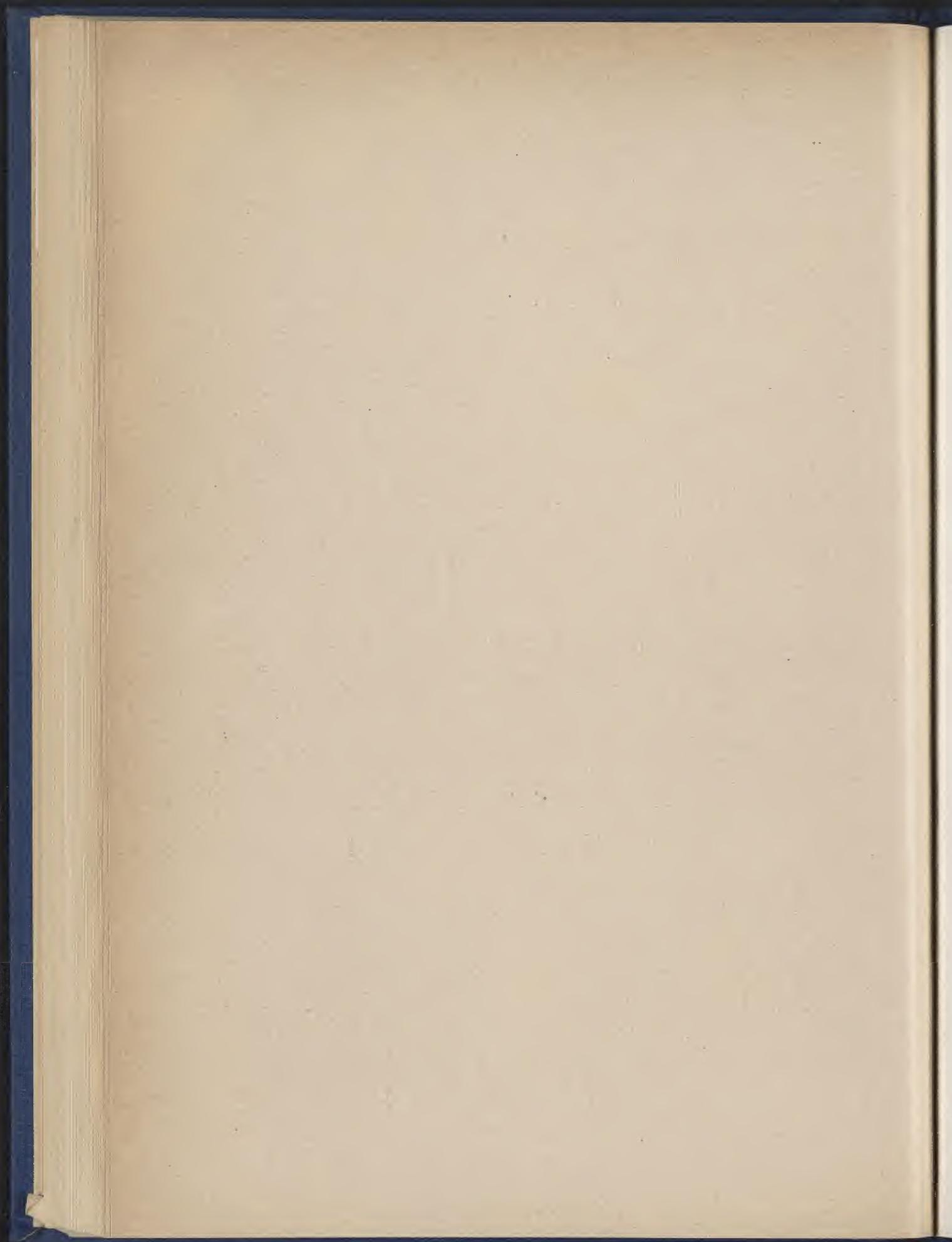


PLATE XVI.



Portion of upright rock on "Skin Hill".

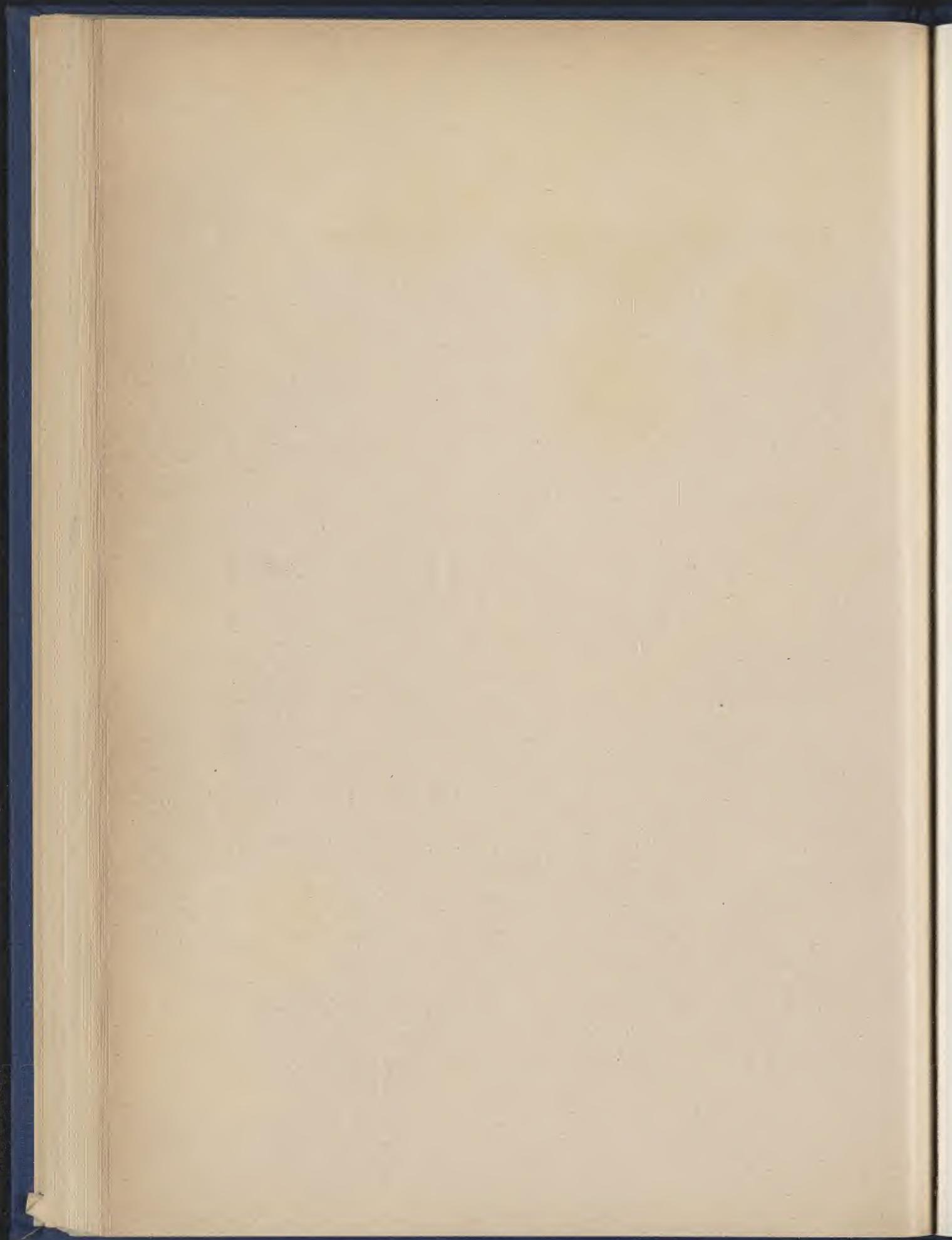
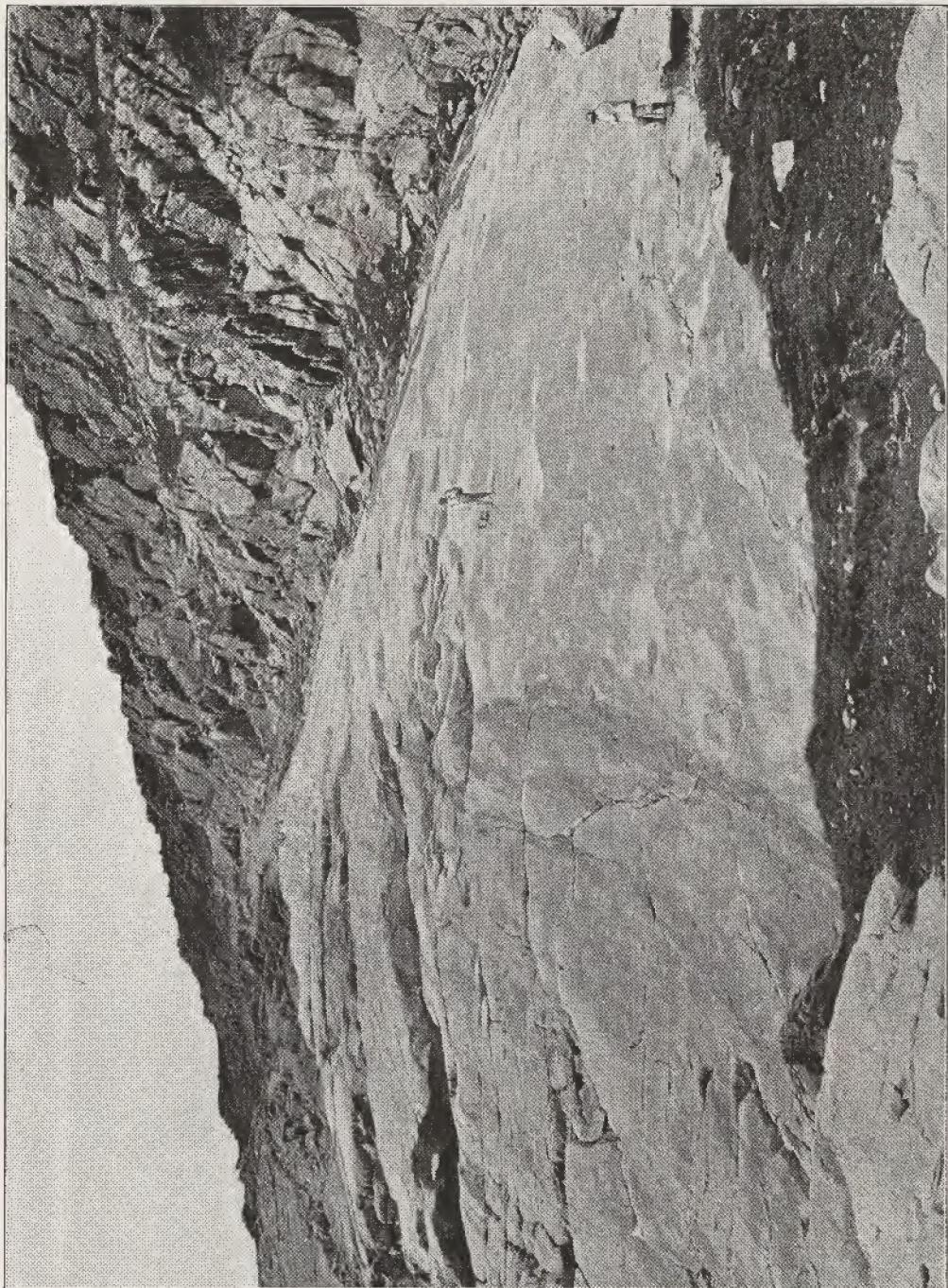


PLATE XVIL.



Smooth blood-red rock under Monte Santa Maria.

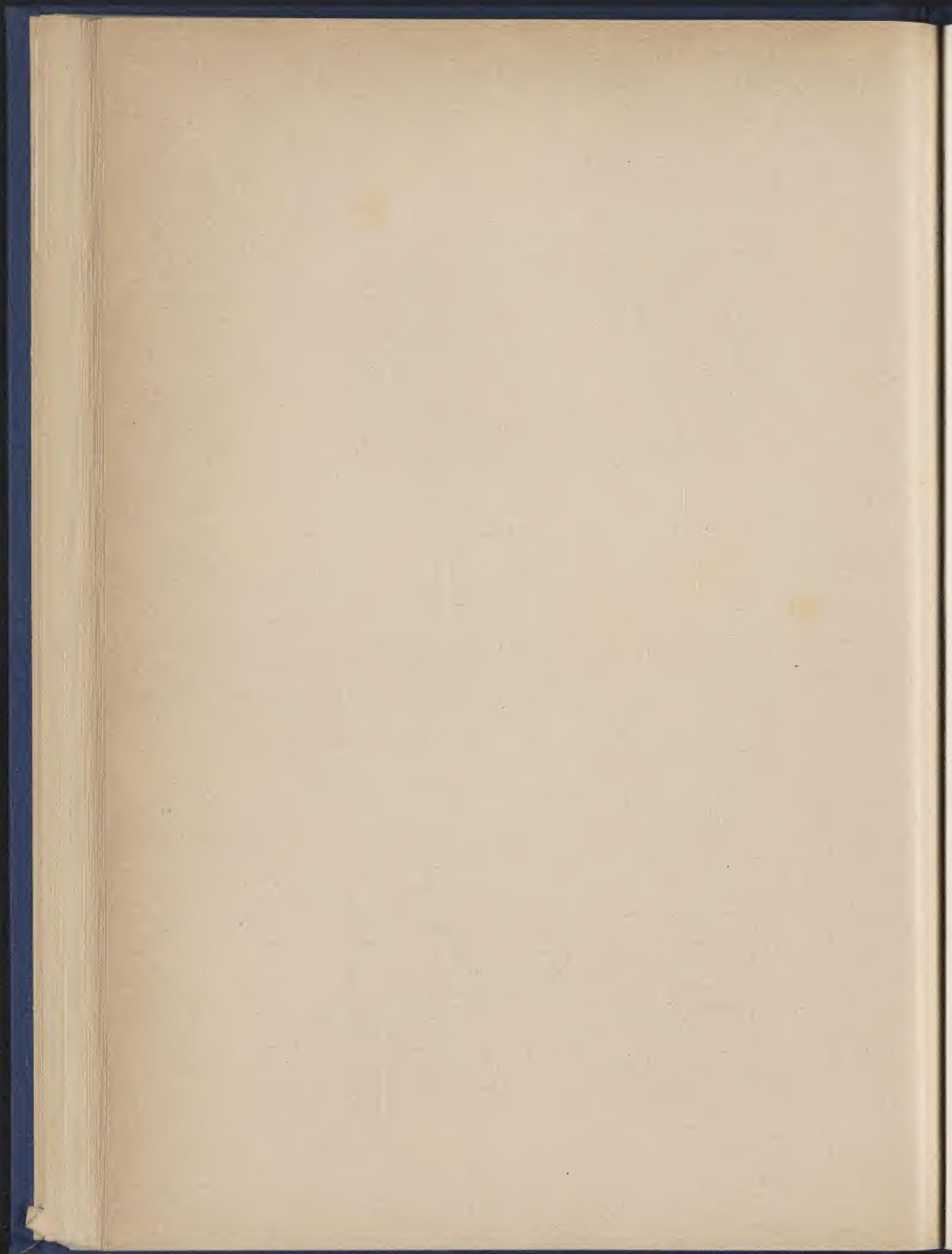
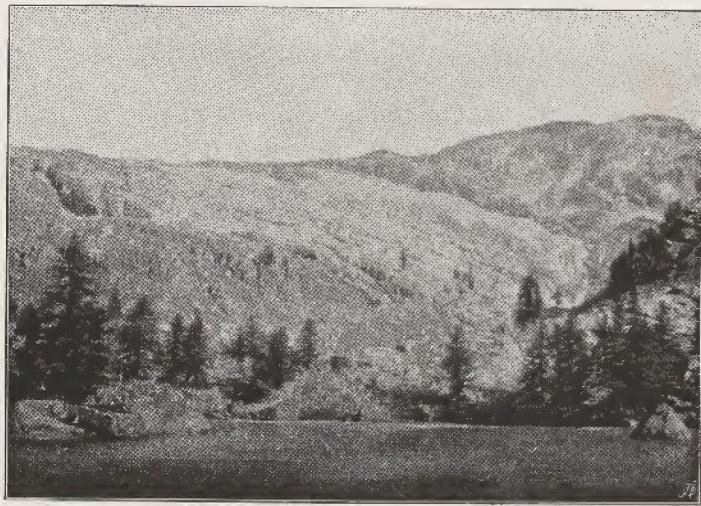


PLATE XVIII.



1. The central grey mass from Lago Verde and Monte Santa Maria



2. Monte Bego from the great smooth surface in the central mass.

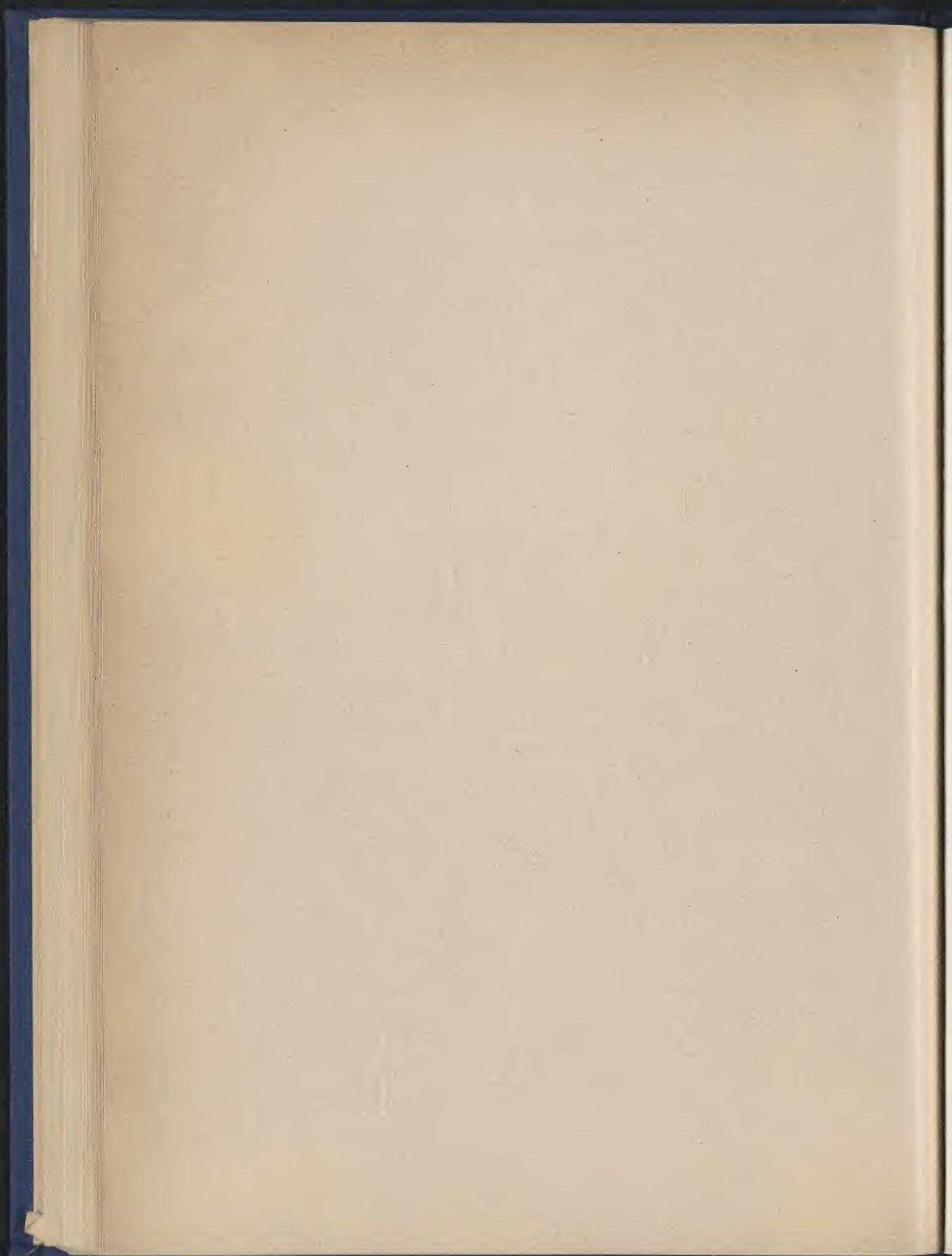
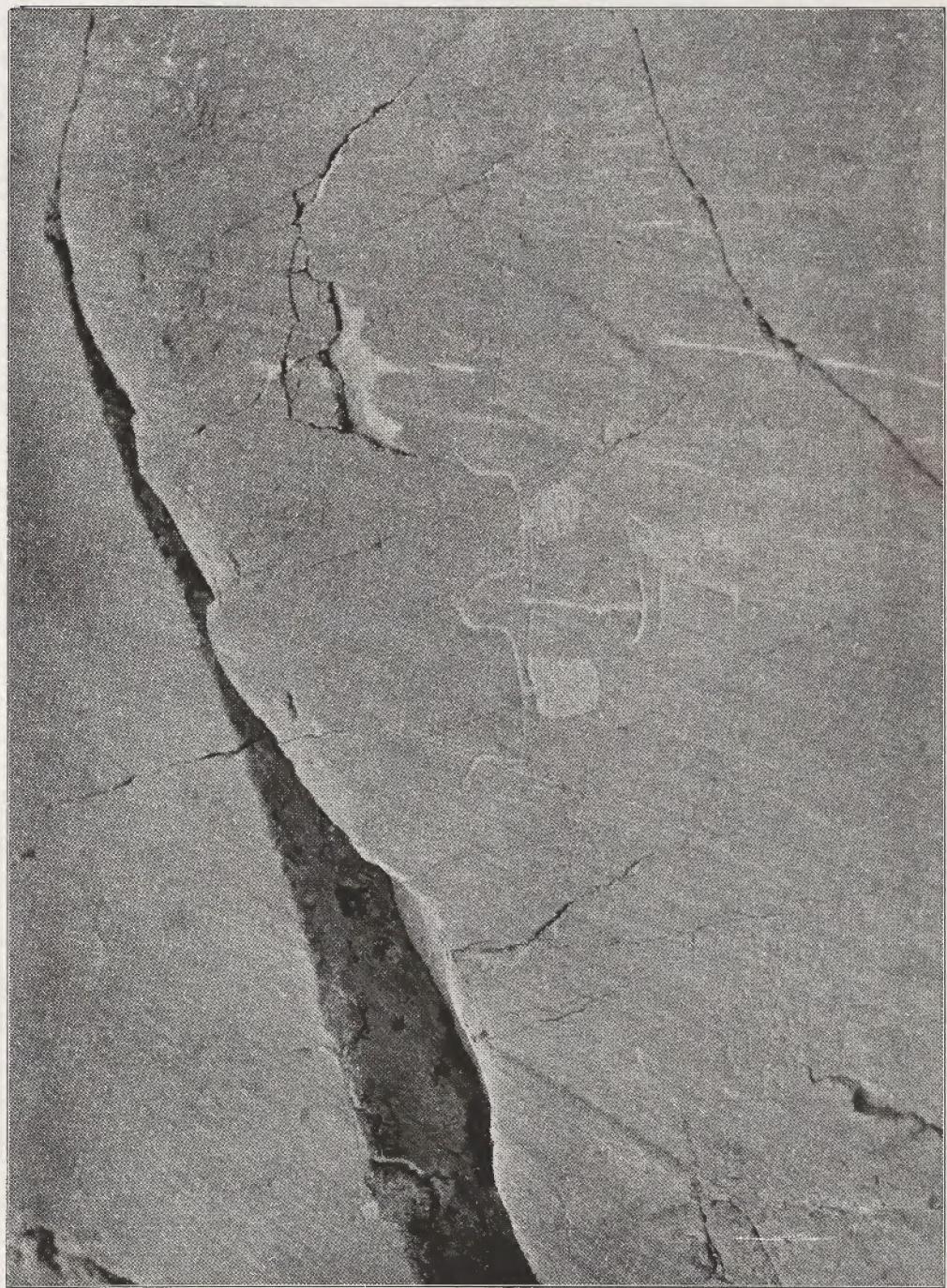


PLATE XIX.



Figures of three men with plough and oxen on the great smooth surface.

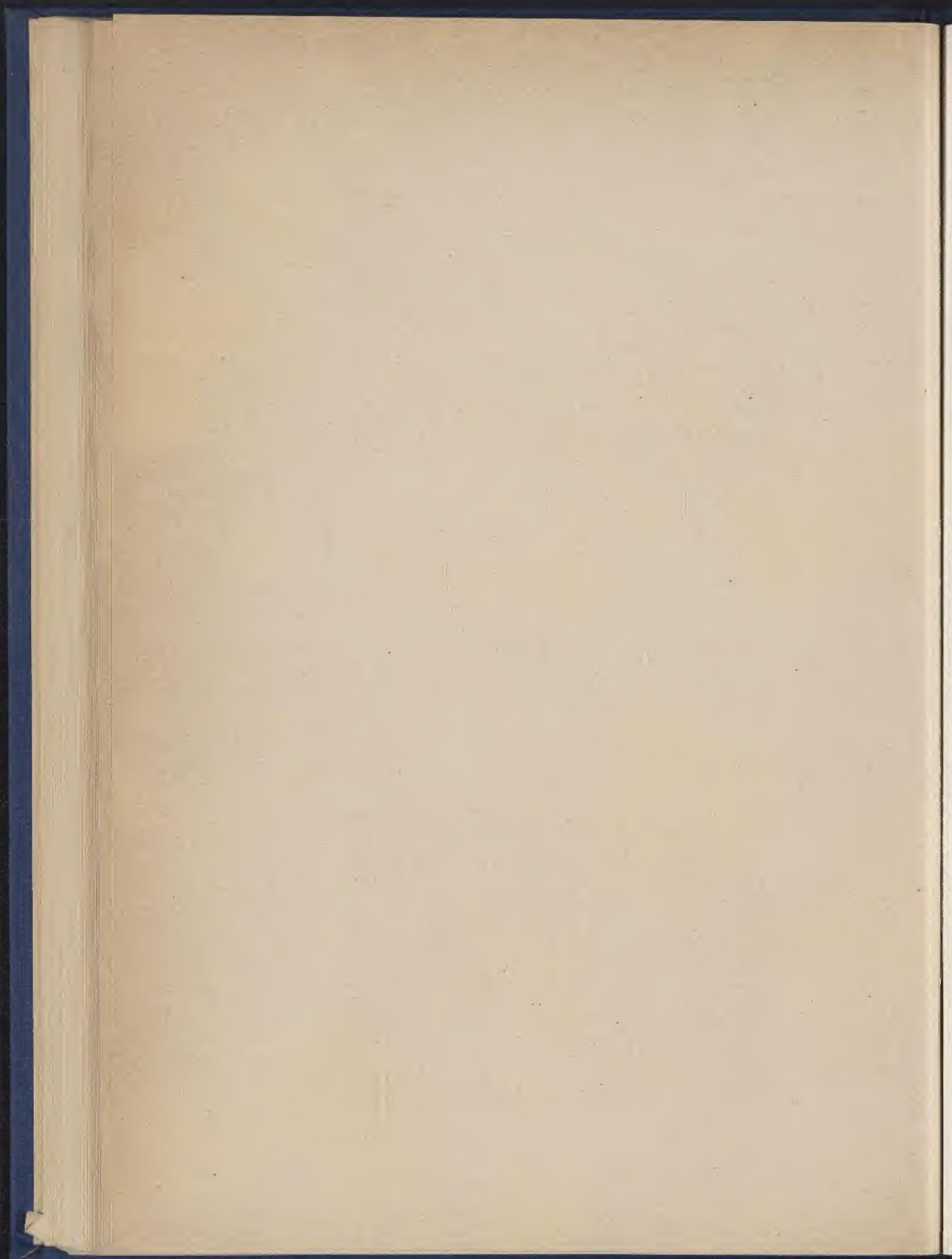
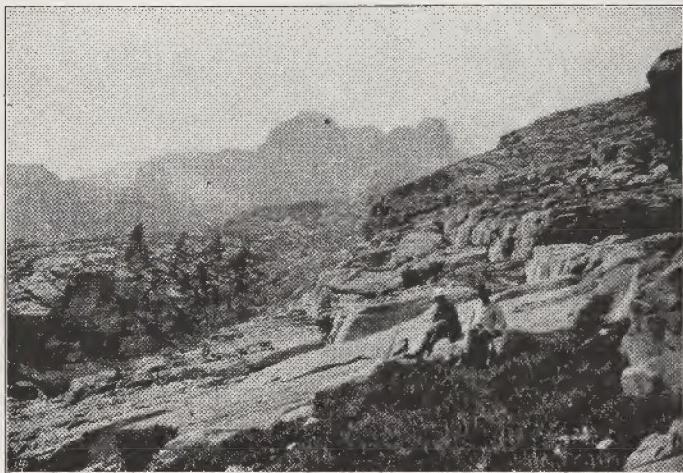


PLATE XX.



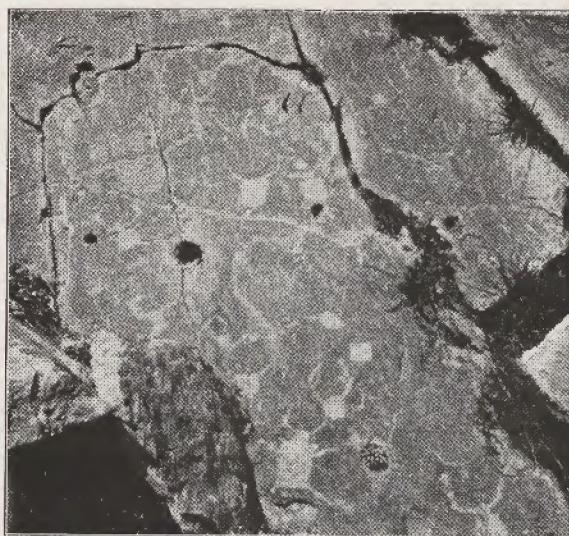
1. Hillside beyond Lago Verde, and part of the Monte Bego region



2. Rock with figures of weapons, etc., on the hillside beyond Lago Verde.



PLATE XXI.



1, 2. Portions of "the 300 Rock".



PLATE XXII.

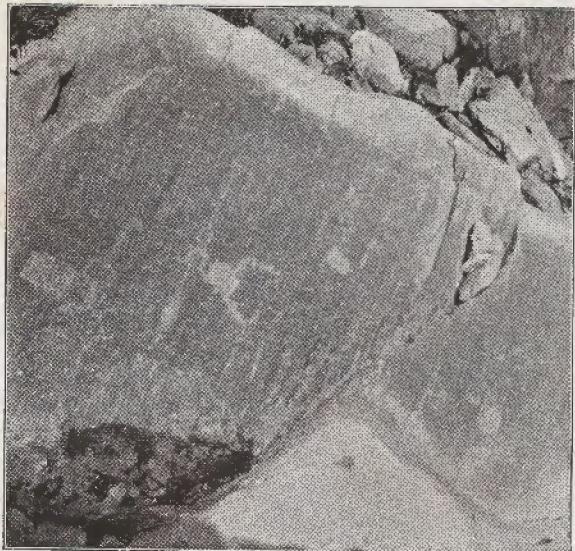


1. Portion of "the 300 Rock".

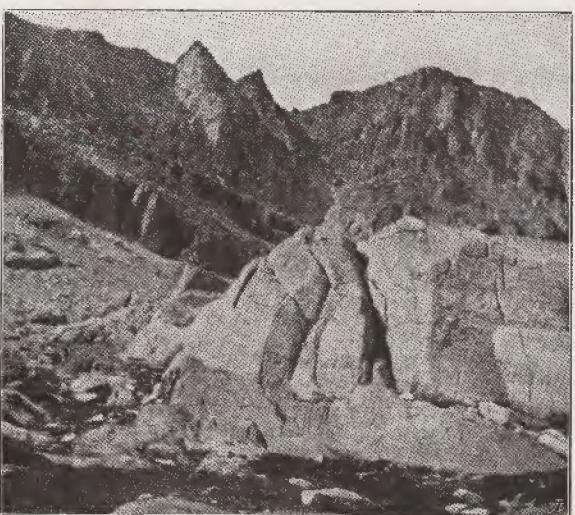


2. "The Napoleon Rock".





1. Rock with four figures of men, at the head of the small gully.



2. Engraved rocks in Val Valauretta.



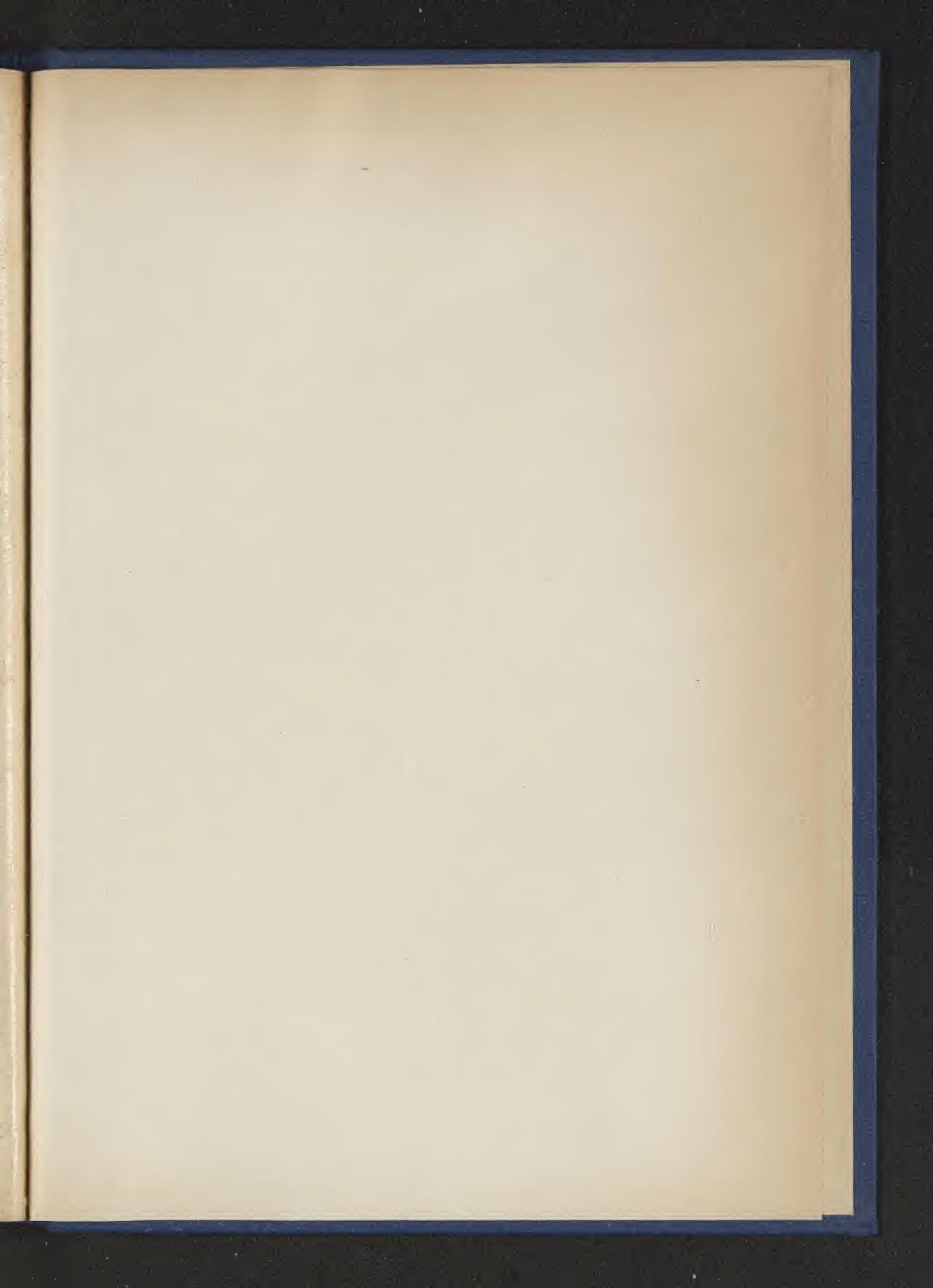
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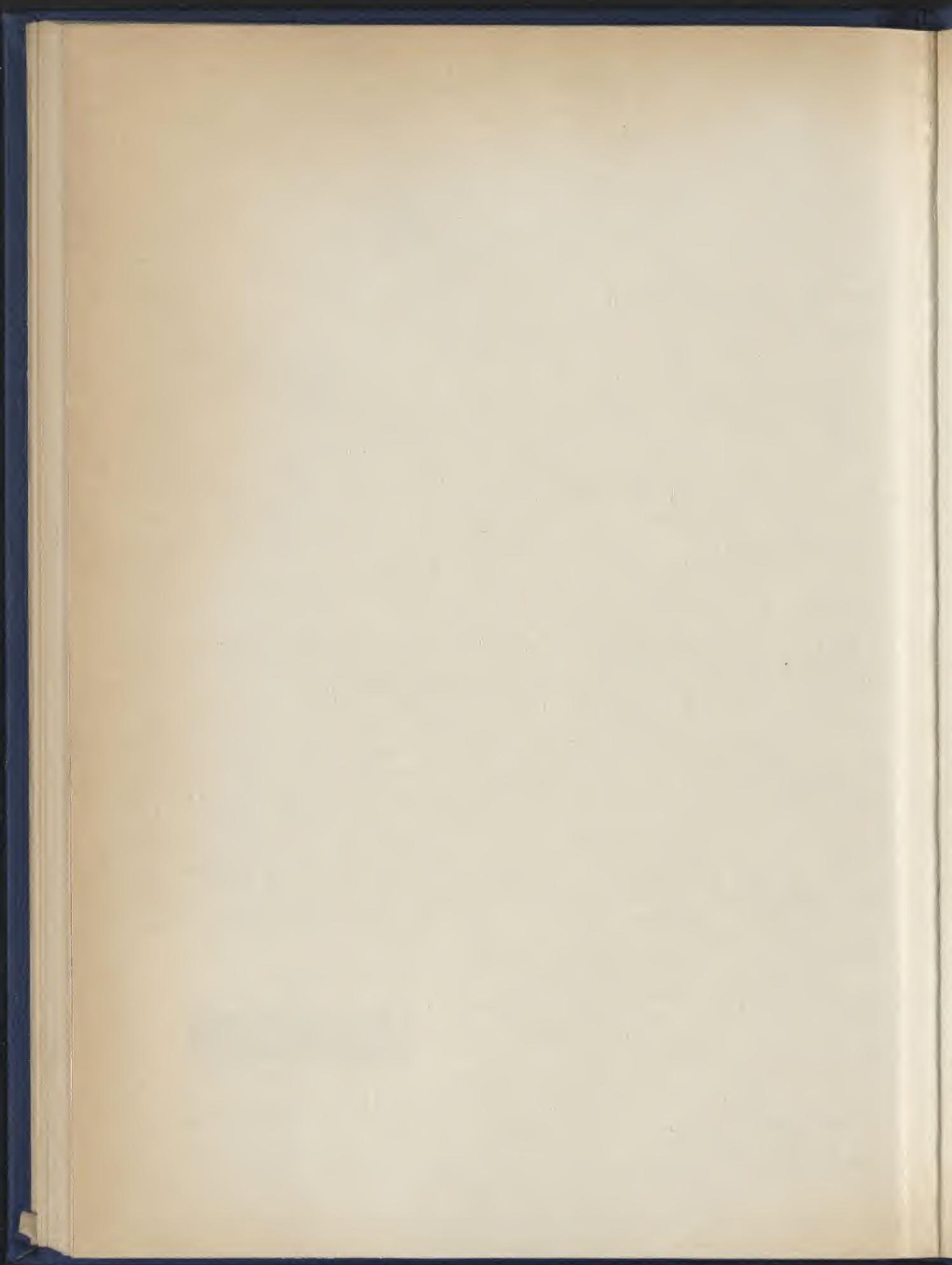


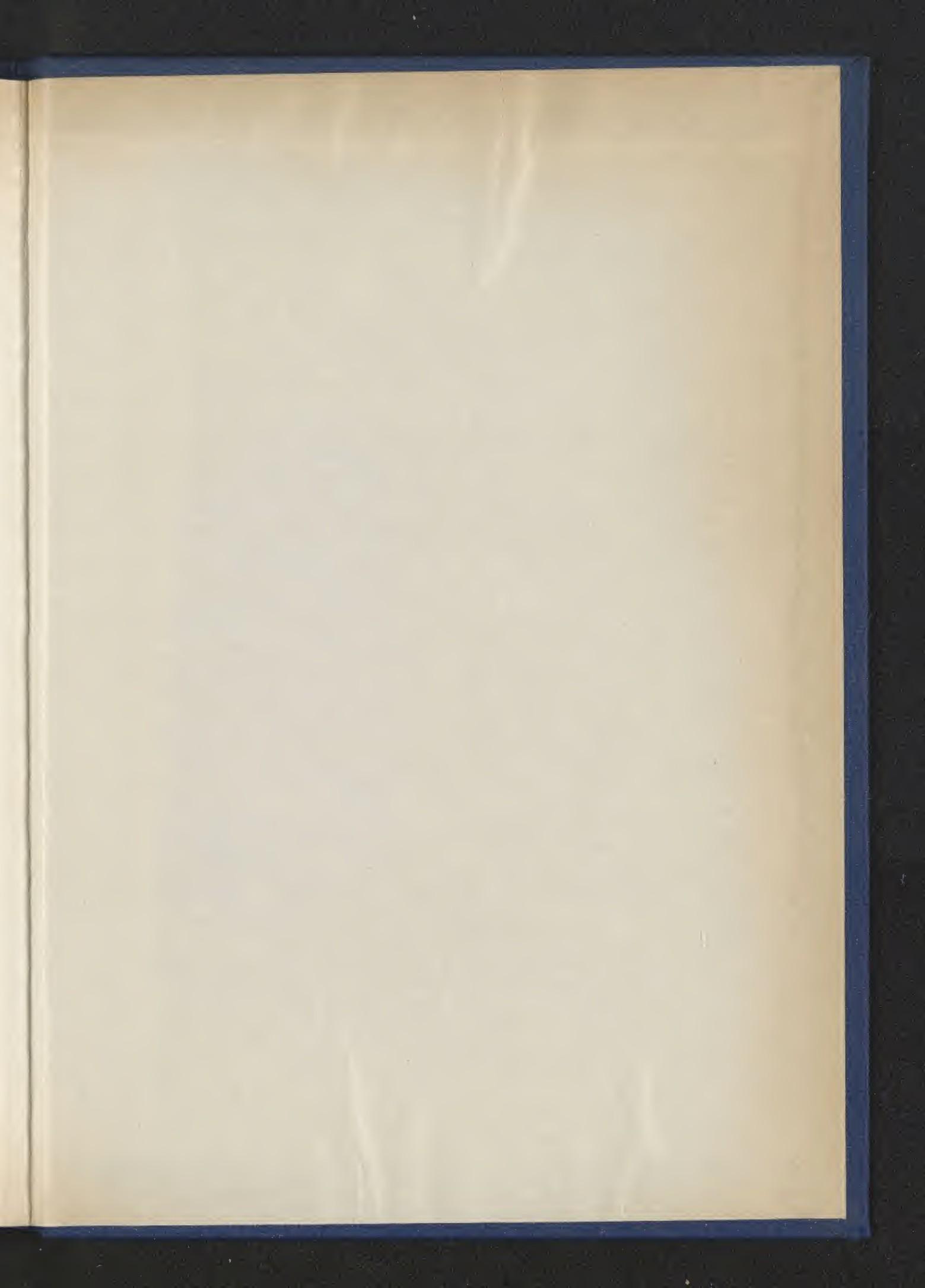
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